

# THE ARCHITECT & BUILDING NEWS

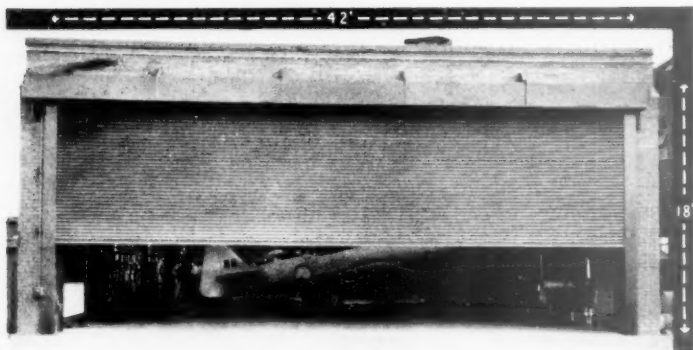
## IN THIS ISSUE

- LABORATORY FOR THE BREWING  
INDUSTRY RESEARCH FOUNDATION
- BRANCH LIBRARY, GEORGIA

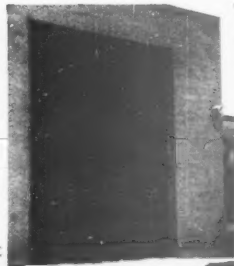
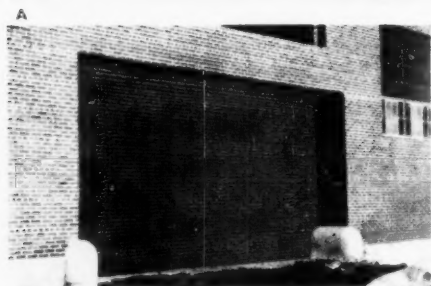
DECEMBER 4, 1952 · VOL. 202 · NO. 4381 · ONE SHILLING WEEKLY

LIKE BRITAIN...

# Canada chooses **BRADY**



More and more Canadian firms are specifying "Brady" for their roller shutter requirements, because Brady service is as efficient abroad as it is at home. Whatever the size or type of shutter required, the Brady organisation can handle the job quickly and efficiently in any part of the world.



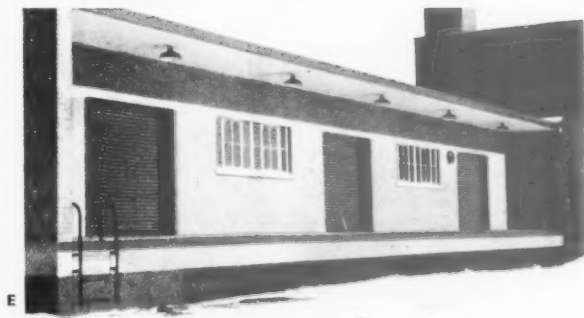
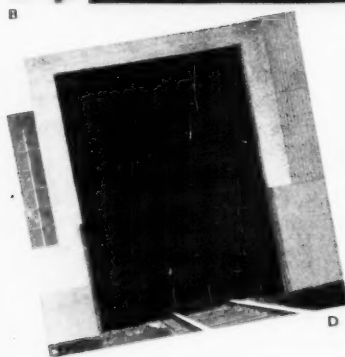
**A** Giant shutter installed for the Canadian Car & Foundry Company Ltd., Montreal.

**B** Steel gear-operated shutter installed for Park Brown Tools, Canada Ltd., Montreal.

**C** Steel gear-operated shutter installed for Goodyear Tire & Rubber Company of Canada Ltd., Montreal.

**D** Steel gear-operated shutter installed for Grinnell Co. of Canada Ltd., Montreal.

**E** 3 Steel gear-operated shutters installed for Goodyear Tire & Rubber Company of Canada Ltd., Montreal.



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# This Steel Shortage . . .

In the situation now confronting steel users, the problem of steel shortage overshadows many other difficulties. Iron and Steel Authorisations are strictly controlled and difficult to secure, so that many of our friends are now finding it impossible to proceed with projected contracts. To anyone, however, who is in a position to obtain an I.S.A., we would say: give careful thought to the selection of your structural engineer. Our interest in this is obvious, but nevertheless it

is reassuring for you to know that when your authorisation does arrive, you can ring us, speak to a director and, as easily as that, start the wheels of our highly geared organisation moving immediately on your behalf. This direct contact with our senior executives is an invaluable and important part of our service — a service which gives you:

**Experience . . .** 80 years of it — built with informed care and skilled effort;

**Economy . . .** our specialised knowledge, called in at the early stage, can often make a little steel go a surprisingly long way!

**Enthusiasm . . .** this is real and apparent from the beginning. It unites everyone in our organisation in powerful, effective attention to the needs of all our customers; it brings speed and efficiency to bear on all contracts.

So, if you are faced with any structural steelwork problem, call us in now . . . we believe we can help you!

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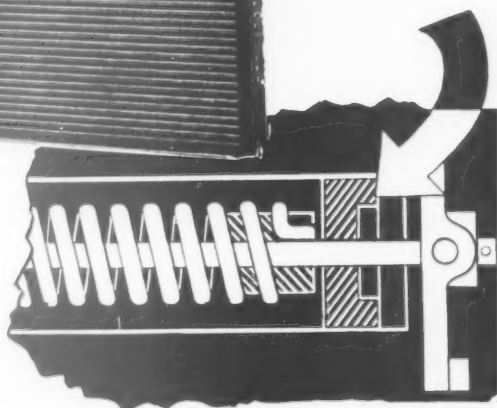


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IN THE  
"ENGINE  
ROOM"

## Further Proof of the Quality of Kinnear Springs

A fortnight ago some Clients in London sent us an open order for the fitting of a new spring to a Shutter which we had erected in 1916, but when the barrel was delivered to our Works the original spring was found to be in perfect condition—after 36 years. All that had happened

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Bookcase with sliding glass doors



Exterior drawers elm veneered doors



# Hilleplan cabinets

This range of furniture is tax-free.

Exterior drawers black Vitrolite doors



Interior drawers cherry veneered doors

These cabinets form part of a varied and versatile range of storage units. The cabinet shown forms the sideboard of the Hilleplan dining group. It has interior shelves, and either two external or two internal drawers, one lined and divided for cutlery. The bookcase has an adjustable shelf and sliding glass doors.

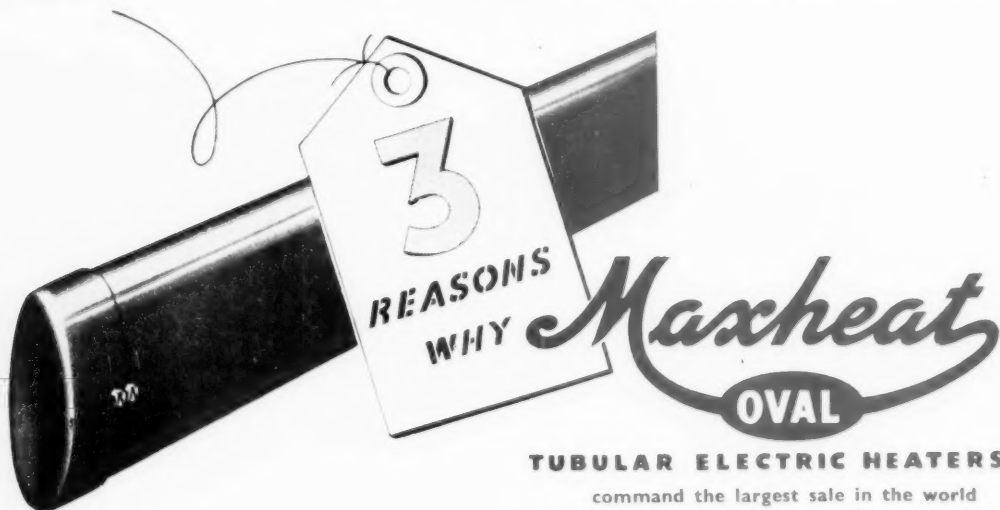
Other cabinet units now available in this range are a three-foot chest of drawers and a three-foot cabinet with drawers below and a fall-front above.

A large range of contemporary furniture may be seen at the showrooms of

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Write for details of Durium Drills and the Rawlplug R.P.L. Electric Drill, the ideal power tool for them. And if you have a fixing problem, tell us about it. Our Technical Service Dept. will be delighted to help you.

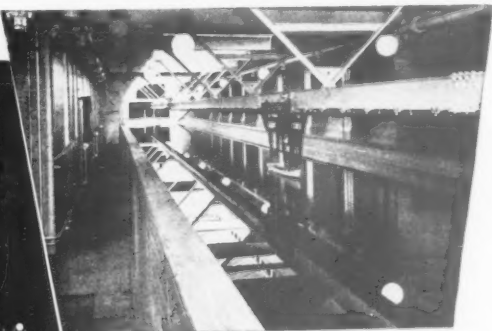
*Durium-tipped—that's the point!*



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## Why Hangers NEW Emulso-Plastic Paint **FABRIGUARD** was chosen here . . .



Our photograph illustrates another extremely interesting and highly successful use of "FABRIGUARD" Emulso-Plastic Paint. It is the new "SHIP MODEL" towing tank in the department of Naval Architecture, King's College, Newcastle upon Tyne.

The exterior of the concrete tank is painted by "FABRIGUARD" process in an attractive blue

showing its suitability for application straight onto concrete. The room itself presented the problem of decoration over varied types of surface—glazed tile dado, old distempered brick walls and lime-washed ceiling. The whole was treated with "FABRIGUARD": the photograph conveys an excellent impression of the light reflection and generally pleasing effect obtained.

*By kind permission of Professor L. C. BURRILL, M.Sc., Ph.D., M.Inst.N.A., M.Inst.Mar.E.*

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Registered Trade Mark



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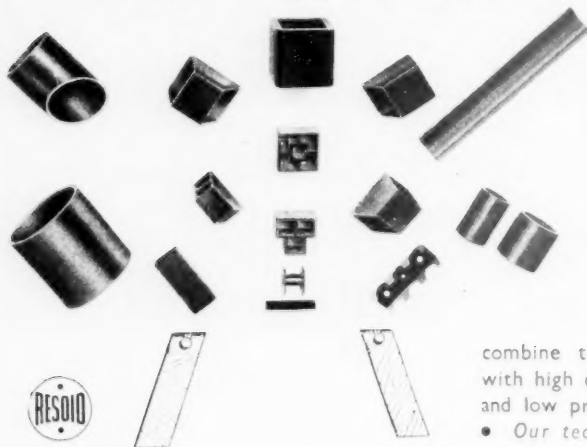
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Long, Rust-proof  
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*The Dining Hall at the  
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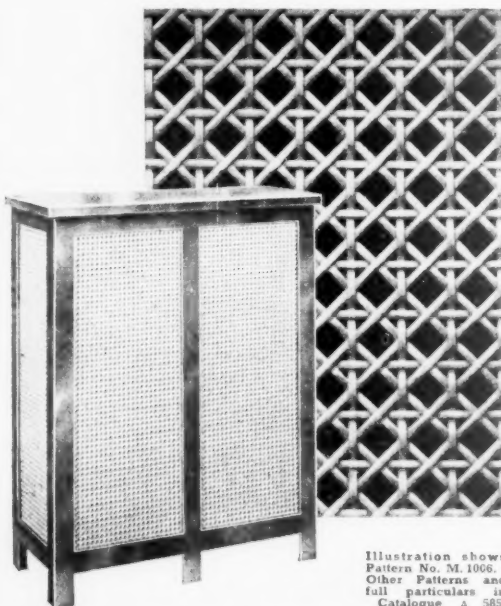


Illustration shows  
Pattern No. M. 1066.  
Other Patterns and  
full particulars in  
Catalogue A 585.

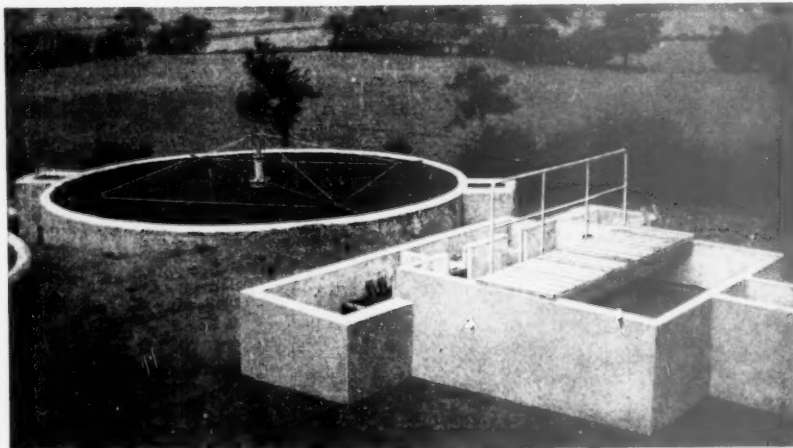
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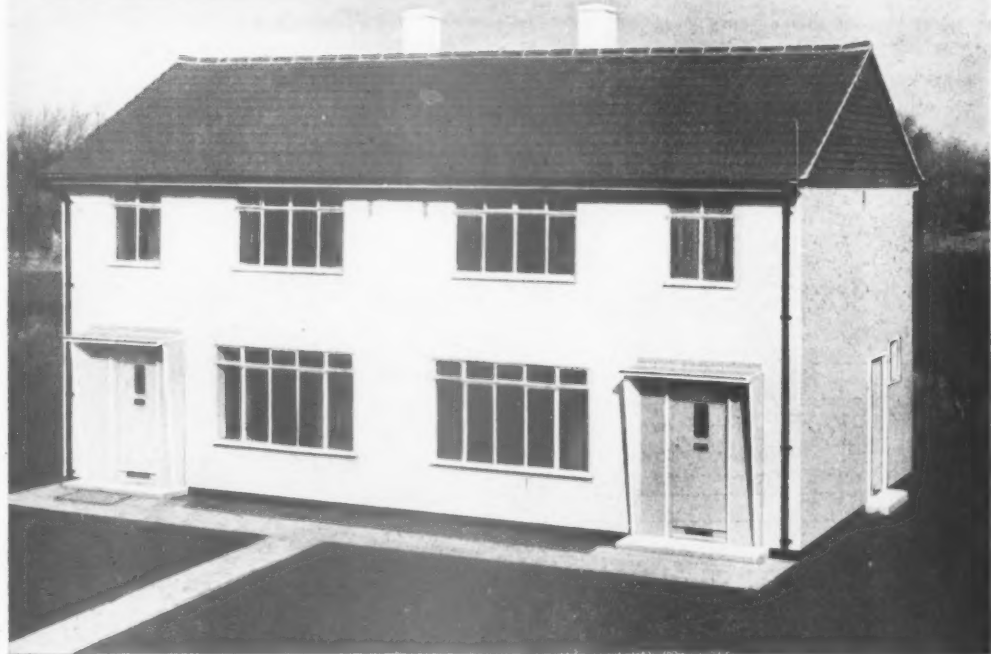
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(Right) Photograph by courtesy of The British Paper Research Association, R. A. Seaton (Rock Art) Ltd.

(Left) Photograph by courtesy of the London Linen Supply Co. Ltd. Wiggins Laundry Ltd.

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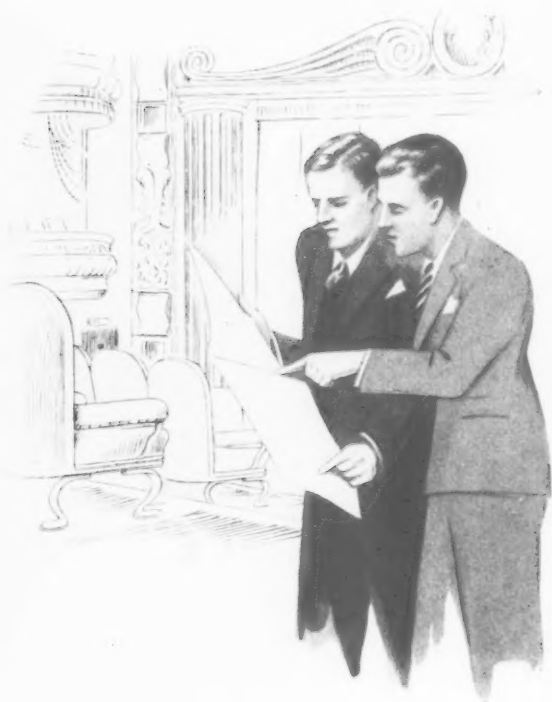


# When

## SEATING RENEWALS ARE PART OF THE CONTRACT.....

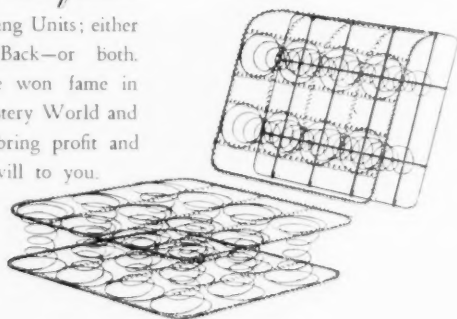
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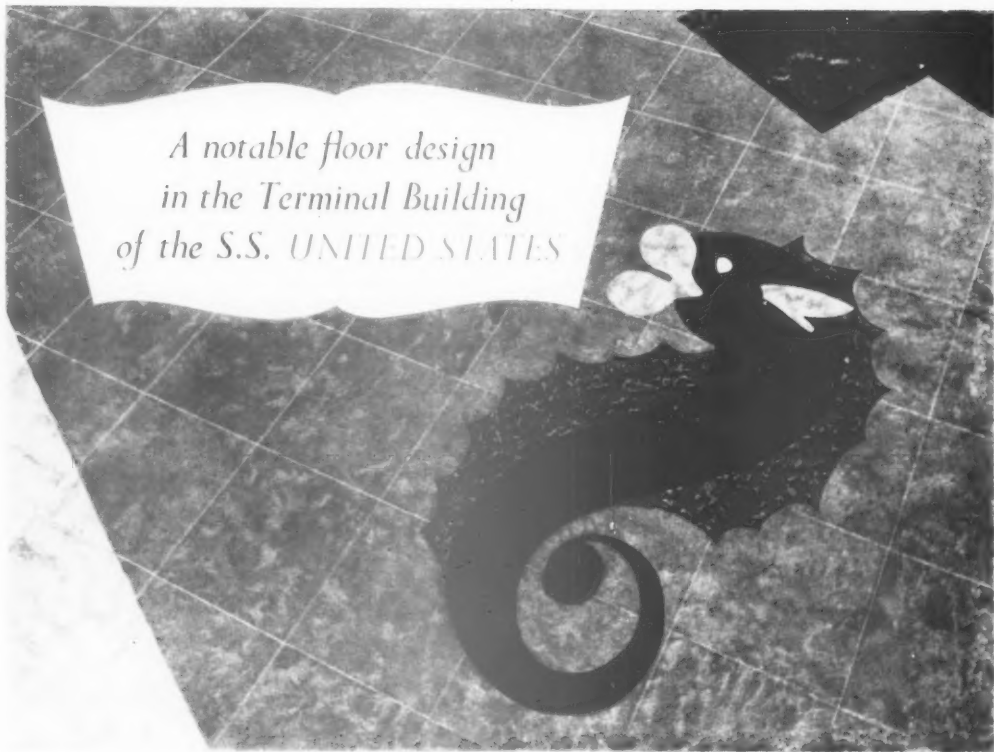
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*A notable floor design  
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*Architect: C. B. Drummond, F.R.I.B.A.,  
Docks & Inland Waterways Executive*



AMERICAN VISITOR disembarking at Southampton from the liner United States quickly receive a fine impression of modern British interior decoration from Terminal Shed 107. Beautifully decorated in a delightful colour scheme of which the floor forms the keynote, this building is surfaced

throughout with colourful Semtex Vinyl Tiles, mainly in honey yellow with an iris green design. A semi-circular sweep in bracken brown round the bar carries novel seahorse motifs in bold, contrasting shades. The whole brilliantly illustrates the colour harmonies and design possibilities of this important complement to the Sematic Decorative Tile series.

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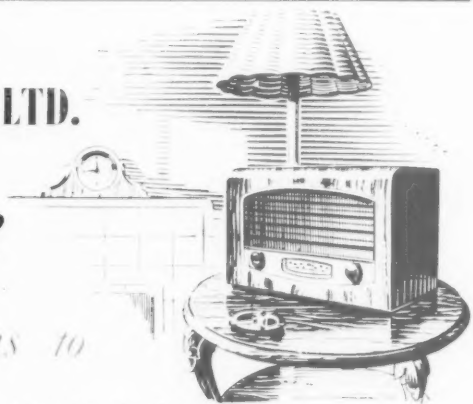
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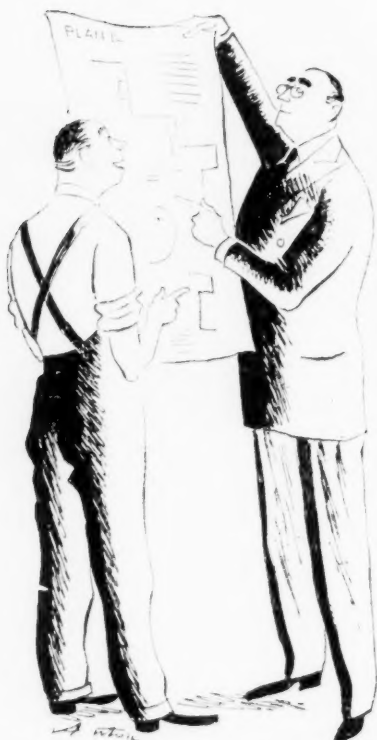
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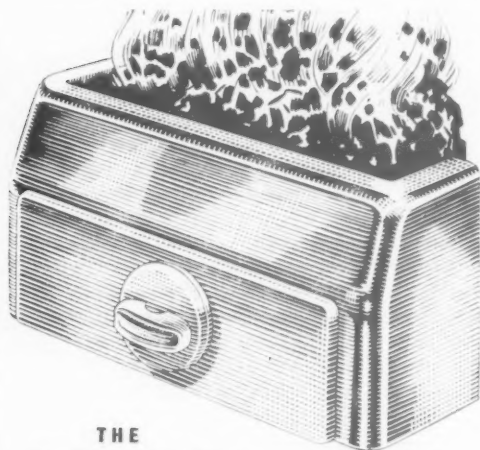
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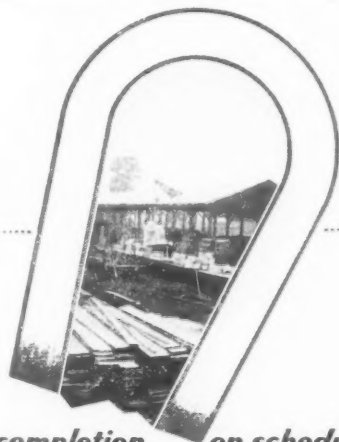
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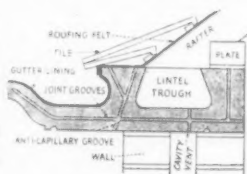
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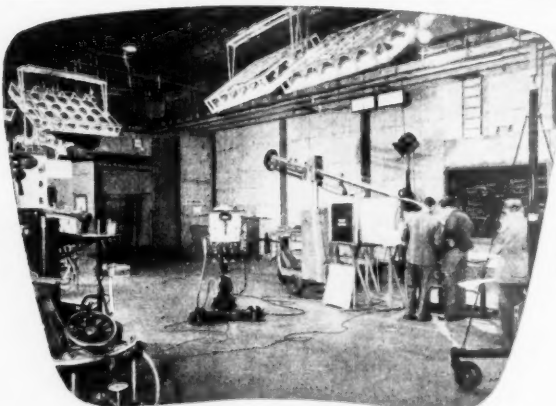
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THE  
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& BUILDING NEWS

December 4, 1952

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## FINE ART AND THE ARTS OF UTILITY

THE Royal Fine Art Commission was appointed twenty-eight years ago; last week it published its Report for 1950 and 1951, the tenth report of its existence. It is nearly twelve months since the end of the last year with which the Report is concerned and, presumably, it will be another year before a further two-yearly Report is presented. When it is noted that in the years under the present review the Commission had before it and considered over two hundred matters of public importance, an average of 100 a year—two a week—it would seem that an annual report would be acceptable and, in fact, necessary to keep both Court and Commons (and through the latter, the public) adequately informed.

The Commissioners now number seventeen (if our calculations from the Reports lists are correct); six are practising architects, two practising sculptors, one a practising painter and one a practising engineer; the others are prominent in their several associations with architecture and the other arts but are not executants in architecture or its parts, in sculpture or in painting. The secretary is full-time and is a trained and experienced architect. The Commissioners hold honorary appointments.

The warrant of the Commission charges it "to enquire into such questions of public amenity or of artistic importance . . . (as may be) . . . of a national or public character." Under this reference it is always a little difficult to understand the title of the Commission insofar as it includes the word "Fine." A common definition of the fine arts, in which dictionaries share, is that they are concerned with the creation of objects of imagination and taste for their own sake without direct reference to utility; but, on the other hand, they include, according to some authorities, not only painting, sculpture, drawing, poetry, music and the drama, but architecture. Town planning, the modern art and

science of public amenity is not old enough to have found a firm niche in the hierarchy. The question arises whether, in a Fine Art Commission, architecture the mother of the arts and a duality in its balance of science and art, should be included and other fine arts, music and its cousins, be excluded. The alternative, of course, is to regard the term "Fine" as redundant and due for elimination.

The work of the Commission is obviously concerned most with those "objects" which can remain in the public eye more or less permanently and, therefore, must include considerations of amenity and utility which are in many instances, brought into relationship and order by the art of architecture and its offspring, town planning (or as some call it, in a limiting sort of way, "civic design"). Thus is the exclusion of music, poetry and the drama justified. But it leaves the onus of balance between, on the one hand, imagination and taste and, on the other, utility and amenity to the advisory administrations of a Commission of Fine Art.

In the Tenth Report there are many matters which can be considered justly as being as much concerned with use as with taste and, in fact, no problem of building or physical planning can afford to ignore these two fundamental factors in arriving at successful and balanced design solutions. Apart from the continued references made to the Commission on the subject of bridges, mostly those of our main roads, the Report stresses, or re-stresses, two other problems which seem to occupy a great deal of its time.

The first of these problems is how to make "unusually large buildings in scale and harmony with their surroundings" and the Commission draws particular attention to the overloading of "central urban areas, particularly in London, with vast multi-storeyed blocks." "Apart," continues

the Report, "from traffic considerations, irreparable harm can be done to civic amenities and historic traditions by such ruthless increases in scale." This shows a realistic and balanced weighing of the factors of this problem, but it also implies a criticism of the senseless expediency which allows this sort of unbalanced town-planning to occur, in spite, even in defiance of the powers provided by the Town & Country Planning Act.

This problem of urban size and scale is not only connected with large Government or private-enterprise office-blocks, it is also related to modern power-stations with their smoke-stacks or the towers disguising them. These huge masses are relative to the modern town or city as the castle or the cathedral was to earlier urban entities. Neither the Commission nor architecture and town planning have yet understood or coped with the implications of this problem which modern, so-called civilisation has presented.

The other matter to which we would briefly refer here is that of street furniture and street lighting. Some agreement has been reached with appropriate authorities on the design of standard equipment for street lighting and for special areas of historic and architectural interest. In many places there can, of course, be no standard (in both

senses of the word) solution, but from an even wider point of view, are we not justified in suggesting that lighting by means of lamps fixed to poles is due for superannuation. Main roads should be lit evenly from curbs or centre traffic-divisions or floodlit from buildings or elsewhere as the circumstances require. This is a road-engineering problem of the first importance to life itself. It does not matter very much to those that die what the design of the lamp-post was like. If the quick who survive can only see that true utilitarian and scientific solutions come to the fore, they may stop the lighting of streets by so many different kinds, intensities and colours of lights and stop the confusion of traffic signals with flashing signs and the glare from wet roads and so on. In such a wonderful event, street lighting would be nearer a solution, with roads that are a safer means of nocturnal circulation and art and design find itself with different, very different, factors to meet in the cause of amenity. This problem, like that of the urban super-building, is one for national planning, for science as well and, only ultimately, for the artist-designer. The present disjointed efforts to find a solution are merely indicators of human inefficiency and the latter perhaps is not a matter for direct reference to the Royal Fine Art Commission.



Photo: Colin Westwood.

Lampstandard at Lansbury, Peplar.

## EVENTS AND COMMENTS

### CORRECTION, I SAY AGAIN

I must apologize for several mistakes on this page last week. Printer's errors they were in fact, but there were extenuating circumstances, for my copy was written in not very good long hand. My second paragraph should have been headed UN-MONUMENTS and not U.N. MONUMENTS. I admit that it is not a very good joke, but the paragraph makes better sense if you realize that a joke was intended. In the fourth paragraph the name of the headquarters of the Column Group should have been Attingham Park. The last paragraph but one should have been headed SPUN PRESTRESSED PRESSURE PIPES. Steps are being taken to try to reduce the number of such inaccuracies in the future. Machinery is being overhauled, wheels oiled, etc.

### NORWEGIAN DESIGN

The A.A. was honoured by the presence of H.E. The Norwegian Ambassador last week when he opened a small but charming exhibition of Norwegian handicrafts arranged in the members' room. In short speeches Mr. Anthony Chitty, during whose presidency the exhibition was planned, welcomed the ambassador to the A.A., and His Excellency spoke of the close ties between this country and his.

The exhibition includes textiles, ceramics, glass and

metalware as well as a few pieces of furniture. The title is perhaps a little misleading as it is more a show of contemporary Norwegian design than of handicrafts. There is some delightful glass and several pieces of excellent pottery. Some of the work bears signs of Swedish influence, but I believe that the textiles and a series of black and white dishes are more in the Norwegian tradition. The exhibition, which was flown from Norway in a military aircraft, was arranged by Mrs. Pollak, of the Royal Norwegian Embassy, and a Norwegian student studying at the A.A. School.

#### SIR OWEN WILLIAMS

If you are not an ice hockey or swimming fan, never go to Bilston nor motor down the Portsmouth road you may not often think about Sir Owen Williams for he is seldom in the news. Last week he spoke at the A.A., his title, Architecture, Trade, Profession or Calling, had little to do with what he said except that at one moment he mentioned it revised to Trade, Profession, Slavery or Calling. Sir Owen warmed to his subject slowly by way of the book of Genesis and the tower of Babel. He treated us to a string of delightful new definitions of architecturally familiar words. According to Sir Owen genesis and engineer mean much about the same thing. An engineer being one who begins at the beginning. A client is one who waits in supplication and tears without. A customer is something quite different although the Concise Oxford Dictionary gives it as an alternative for client. Most of the people in the room expected to hear a terrific attack on architects, instead of which they heard a witty, and sometimes rather difficult to follow dissertation on the relation of architects to engineers and both to clients, or customers. One of the nicer points made by Sir Owen was that there is always a great difference between what the client wants and what he needs. In Sir Owen's view it is up to the architect to give him what he needs.

Another point which Sir Owen made was that if something, when designed, looked wrong, it was no use trying to prove it was right by calculation. He reckoned that he could teach any reasonable person the mathematical side of engineering sitting on a park seat in a couple of hours. The rest, he said, was a question of beginning at the beginning with complete honesty.

Sir Owen Williams is an individualist and a character, and although he looks surprisingly young he must be getting on, as they say. I only hope that we have among our younger men a further supply of Sir Owens.

It was one of the A.A.'s more amusing evenings, and although I do not think that everyone believed everything the speaker said I doubt whether he did himself.

After the meeting members and guests inspected a number of models of work and projects by Sir Owen which were displayed in the library. I was particularly interested in a dome-like hangar shown containing a model Brabazon and a system of connected concrete domes to obtain vast unobstructed spans.

#### NATIONAL GALLERY MOSAICS

My picture shows one of the Mosaic floor panels recently completed at the National Gallery by Boris Anrep. The total area covered by the mosaics is some 80 sq yds, and other panels include likenesses of Mr. Churchill in



Detail of part of the mosaic floor by Mr. Boris Anrep at the National Gallery.

his siren suit as Defiance, Augustus John as Neptune having a word with Alice and a mermaid, entitled Wonder. The steeple climber in pursuit is Mr. Fred Hoyle, the astronomer. I have not seen the mosaics but if their colour is as spirited as their pattern and subject matter they should be quite an eye-ful.

#### NEW COINAGE, NEW STAMPS

I like very much the effigy of the Queen on the new coinage, and it seems to me to matter not one jot whether Her Majesty is made to look five years younger or older than she is to-day. I wish I felt the same way about the other side of the various coins. In general, the shields look clumsy and the whole surface of each coin is cluttered up with too many things. I imagine that the lettering on each side will be made the same to conform with present practice, and I cannot help feeling that the finished coins will look better than the plaster models. It is odd that the reverse sides of our coins are always so much less dignified than the obverse. The penny and the halfpenny, assuming that their reverses are not to be altered, will still be our handsomest coins.

A certain amount of the effect of the new stamps will depend on their colour. I must say that I am not impressed with them in black and white. It is a nice photograph of Her Majesty, but surrounded on the 1½d stamp by what look like chunks of gyrating metal representing the four countries of the United Kingdom the portrait looks anything but happy.

Perhaps it is unkind to judge too soon, and maybe we shall grow to like them all. Meanwhile, congratulations.

to all the designers, and very special congratulations to Mrs. M. Gillick, the 71-year-old sculptress of the Queen's effigy.

#### IN THE BAG

The travelling house salesman is perhaps not as common in this country as he is, say, in the United States, but he does exist. Mr. J. B. A. Castle, of Gregory Housing, Ltd., is one of them, and carries a model of his firm's two-storey flat block with him. Nice work, sir, and now all you need is Marzipan and his magic wand for an assistant.

#### PACIFIC COAST HEMLOCK

Said to be an almost perfect all-purpose timber Pacific Coast hemlock is being publicised in Canada. Its grain is straight, it is free from knots, and of even texture. The wood shows little tendency to split when nailed. It also planes well, without surface feathering, and works as well with a hammer and hand saw as with machine tools. It takes any form of decorative finish and is of attractive colour. It has not been heard of much in the past because loggers have only recently started to cut on the higher

mountain slopes where it grows at its best. In Canada it sells for about the same price as Douglas fir. In this country? Well, I fear I do not know.

#### L.C.C. RETIREMENT

Retiring from the Architect's department of the L.C.C. after 32 years' service, Mr. J. H. Farrar, A.R.C.A., will devote himself to his garden, painting stage scenery and the study of old buildings. Mr. Farrar has for the last eight years been Officer-in-charge of the Historic Records of the L.C.C. Architect's Department, and supervised the drawings and architectural matter in the published volumes of the London Survey. Mr. Farrar trained in Leeds, partly in his father's office and partly at the Leeds School. Mr. W. A. Eden, his successor at the L.C.C., was until recently head of the Sheffield School. He is being succeeded by Mr. Chippindale, from Leicester, who is being succeeded by Mr. Howrie, from Leeds; not that that proves anything. Let us wish Mr. Farrar a long and happy retirement and all the others good luck in their new appointments.

ABNER

## American News Letter—4

WE can now form our judgment of the whole UN Group without the fear of being reminded that it is not fair to criticize a half-finished job. The General Assembly Building was, if you remember, to form a monumental climax to the scheme and now that it is completed the question arises as to whether or not it does so. My own answer is—yes, if looked at from the inside; no, if looked at from the outside.

Inside the three buildings on the day before the opening of the first Assembly I was conscious of a series of relationships quite different from that presented by their outward form. Looking from the entrance forecourt the Secretariat was all-powerful, imposing, the way in without any shadow of doubt; the Conference Rooms—merely a link, indistinguishable; the General Assembly Hall, a spacious glass-fronted foyer, but without any authority in comparison with the Secretariat. From the inside this impression was almost reversed.

The Secretariat disappeared, its ground floor serving simply as a generous foyer. After passing through it I felt that the true business of the building really began to assert itself; hurrying delegates, the conference rooms—suddenly significant; the delegates' lounge (with the Scandinavian touch laid very successfully on one corner devoted to the reading of world newspapers), the rooftop restaurant with its magnificent river views, cocktail bars and earnest discussion groups; then the approach to the General Assembly Hall, more spacious circulation, a more dramatic atmosphere, and now the huge space itself; undoubtedly the type of progression demanded by the function of the building. That it is present is a tribute to Wallace Harrison and the team of architects; that it is obscured by the external treatment is perhaps as much as anything a comment on the progress of modern design towards the solution of the problem involved.

What were the possibilities, what else could have been done? The criticism is that the General Assembly does

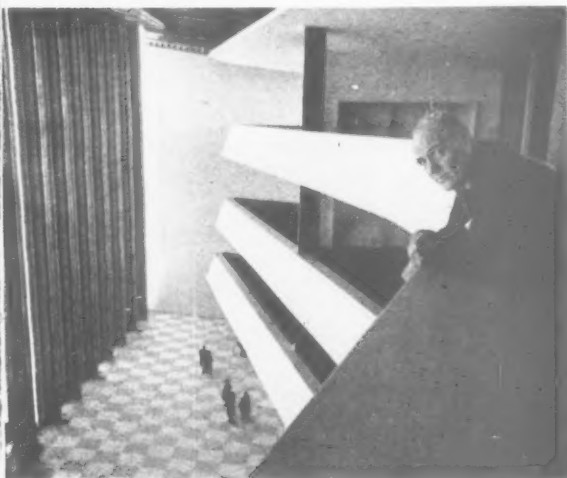
not receive sufficient emphasis, that it is overpowered by the Secretariat. The building which houses the office staff is therefore more monumental than the building in which the destiny of the world is under review.

Imagine, if the thought isn't too hair-raising, the Secretariat laid down on its face—quite a lot of medium-sized skyscrapers along First Avenue would have to be cleared out of the way in order to do this, but supposing the offices had been dealt with in this way, in a horizontal space instead of a vertical one, wouldn't something very attractive have been lost? I mean the sense of compactness which is strongly felt as one walks about the Centre.

If the whole site had not been freed of the Secretariat, I am sure that it would not have been so pleasant to walk along glazed corridors and foyers with views of terraces, paving patterns, the line of flags of all nations fluttering along the sidewalk, the circular pool with its fountains and serpentine floor of alternate black and white bands of pebbles—in fact, all the activity of the scene. However well designed, a large area of offices would have been in the way.

But this takes us right back to the long history of the UN site, when in 1946 a Headquarters Commission composed of international representatives (Le Corbusier represented France) examined the problem and searched the United States for a site. Statistics and "time-honoured methods" had already shown that 11.25 square miles would be required to house the UN employees. There were other estimates which varied from 3.5 to 20 and even 40 square miles! Such, as Corbusier pointed out, was the confusion in the official mind. The story of how the Commission was led to the decision of selecting an area of only 17 acres in Manhattan, after visiting by plane, special train and automobile possible sites in Philadelphia, San Francisco, Boston, New York State (Westchester), and Connecticut State (Fairfield), is told in a rather frustrated book





[Life Photo by Lisa Larsen]

Mr. Wallace K. Harrison in the the General Assembly Building of UNO.

written by Corbusier called "UN Headquarters" (published by Reinhold, New York). Corbusier, roused by the thought of designing a World Centre, came to the regretful conclusion that the World was not yet ready for a Centre, and that the East River buildings should not be regarded as fulfilling that rôle in any way.

However, the point I wanted to make was that the use of the 17-acre site was only made possible at all by the vertical slab form of the Secretariat, and any criticism of this building should not overlook that fact. It was a requirement of the General Assembly building to stand up to the challenge.

To return to the design of the interiors, an interesting use has been made, in the Scandinavian Council and Conference Rooms as well as in the Assembly, of the colour value of upholstered seats. The expression of the hierarchy of delegates, assistants, secretaries, press, spectators in different shades of boldly coloured plastic material—pale blue, sage green, apple green, buff, bottle green, has produced a gay effect indeed. The restrained treatment of all circulation spaces contrasts throughout with bold colour in important rooms. The two abstract compositions by Fernand Leger (who was, ironically, not permitted to enter the United States to execute his designs) are perhaps the most monumental things in the General Assembly Hall, and they achieve their effect by the use of strong colour—illustrating the effectiveness of this kind of decoration when used on a grand scale.

Leger was an excellent choice for the job. His two designs, one a perfectly flat pattern in red, dark blue and white, the other drawn loosely in rough black line filled with pale blue, orange and white, are exactly opposite each other on the transverse axis of the auditorium. Here the rake of the spectators seating area begins and the concave front of the balcony overhead contrasts effectively with the convex curve of glass which forms the back of the auditorium. Glass seems an unlikely substitute for the acoustic tiles usually placed in this position, but in the Assembly everyone hears through little transparent plastic covers which fit snugly over the left ear and talk one's own language, so acoustics are not so important.

The view of the auditorium offered to Mr. Trygve Lie, but not to spectators is, I think, a very exciting one. In the other direction the view is not too inspiring—even the vertical, widely spaced battens, successful in the Scandinavian Conference Rooms, do not look happy in their gold paint.

Of all the furniture specially designed for the occasion, I found the Speaker's desk in the Assembly the most fascinating. Truly a machine-age invention with a dashboard of controls. In the order that a delegate would probably memorize them before reading his report, control instructions are: adjust desk height (a low purring follows the slightest pressure on this button); set Speech Time, Language Selector and synchronize watches; watch for signal from microphone control; check volume; microphone red . . . microphone yellow . . . microphone green; Speak. Externally faced with marble and internally lined (so that the edge shows) with natural wood, access panels to "the works" in satin-finished perforated aluminium sheet, this desk is in itself an elegant piece of design.

Among other details that should be mentioned, I would include the ventilating ducts left exposed, even in the dome of the Assembly building; this dome seen from the outside from windows of the Delegates' Restaurant—where it is just about on eye level, appearing out of the middle of the upward curving roof like a new-born volcano; plunging internal stairs with curved (on elevation) exposed plate girders painted black and sheathed on the inside with aluminium; an endearing wallpaper design by Saul Steinberg in the Staff Restaurant whose moral I am still trying to work out. Its subject is trains; the pattern being provided by the repetition of horizontal and vertical drawings which seemed to represent the vast empty space of the Gare du Nord and the lowering atmosphere of the Galleria Borghese when subjected to the passage of a Steinberg train, packed with humanity. Steinberg's colours—blue, terra-cotta, yellow and green—are allotted in strict rotation to the curtains in the restaurant, each bay a separate colour.

Frank Lloyd Wright's "glistening white" coiled spring—the Solomon R. Guggenheim Memorial Museum—is passing through the final stages of approval by the New York building authorities, so presumably work will soon be started on the new site acquired on Fifth Avenue overlooking Central Park.

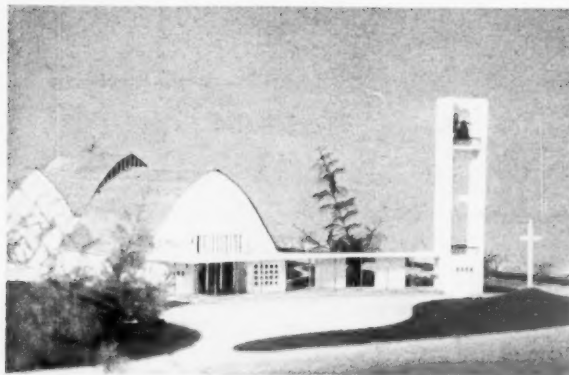
I visited the present home of the Guggenheim collection—a lavishly converted town house, also overlooking Central Park—and took the opportunity of absorbing the "advanced forms of painting" displayed on its walls. The galleries are most generously supplied with well-sprung divans and an intimate atmosphere, even the air being filled with the sound of a Bach concerto flowing out from concealed loudspeakers, so that no one could rightly complain of any material obstacles preventing full appreciation of the paintings.

The business-like traffic flow of Frank Lloyd Wright's ramp will soon put an end to any divan loitering.

It is a controversial issue, which of the two methods of viewing paintings is the best. To stop and meditate while surrounded by three or four large works, at a distance from them but in clear view of all, is denied to the descender of a spiralling ramp. However, Le Corbusier favours an amazingly similar idea in his proposal for a World Museum for the UN. He suggests that you walk up the outside of the spiral on a roof deck for the benefit of the view, and take in the exhibits on the inside on the way down.

I think Wright sends you up in a lift, but whichever way you have it, and however conducive the method may be to the appreciation of art, both ensure that you have plenty of time to see the Building.

GEOFFREY HOLROYD



Model of University College Chapel, Ibadan, Nigeria. The Chapel, designed by George G. Pace, F.S.A., F.R.I.B.A., a Pugin scholar and Ashpitel Prizeman, will form part of the new University College at Ibadan, Nigeria. The University itself was designed by Maxwell Fry and Jane Drew. The new chapel, which will seat 600 and be of contemporary design, is to be constructed chiefly of local materials like the hardwood shingles covering the Lamella roof trusses, and concrete blocks. The stonework for the altar and central space will be prepared in England and a Nigerian Sculptor is to carve a "Great Group" for the chapel.

## NEWS OF THE WEEK

### SouthBank Exhibition Area

#### Interim Development

At the meeting of the L.C.C. on December 2, the General Purposes Committee of the L.C.C. reported that the Ministry of Works have intimated that they do not wish to proceed with the lease of the 11-acre site on the upstream section of the South Bank exhibition site, the terms of which were approved by the Council on October 5, 1948. The General Purposes and Town Planning Committees are considering alternative proposals for the permanent development of the site (Government offices, etc., had been envisaged by the Ministry). Meanwhile the General Purposes Committee consider that a simple and attractive interim layout comparable with the downstream section would be appropriate and that the site should be made accessible to the public. Cost of layout and necessary lighting is estimated at £20,000 and £12,500 respectively.

The Committee also refer to the recent helicopter experimental tests on the South Bank and to the report made by the Department of Scientific and Industrial Research, which concludes that there would be no annoyance from noise or other factors, in either the Council chamber in the County Hall or the auditorium of the Royal Festival Hall provided the helicopters maintained a height not less than 1,000 feet. The Committee state that it is clear, however, from experience gained during the tests, that annoyance would be caused to occupants of rooms in both buildings whenever the machines came below that height while waiting to land and during preparations for taking off, and that in such circumstances there might well be disturbance in the Council chamber or even in the auditorium of the Royal Festival Hall. The Committee add that it seems plain that the noise generated

by present types of helicopters is already such that it can produce serious disturbance in urban areas, and that the introduction of more powerful types will tend to increase this difficulty. The results of the recent tests have emphasized the need for research into the problem of reducing the noise at its source. The Committee do not think, however, that the South Bank would be suitable for use as a permanent helicopter landing ground, though the possibility of constructing an elevated platform (for instance, over Waterloo Station) is well worth considering. The Ministry of Civil Aviation have been informed accordingly.

#### N.F.B.T.E. Presidential Nominations

Mr. Wilfred Horsfall, of Liversedge, Yorks, has been nominated by the Council of the National Federation of Building Trades Employers to be President of the Federation in 1953. Other nominations by the Council are: Senior Vice-President, Mr. G. W. Grosvenor (Bath); Junior Vice-Presidents, Mr. H. G. Frost, O.B.E. (Bury St. Edmunds), Mr. Nigel Hannen (London) and Mr. L. A. Walden (Henley-on-Thames).

#### OBITUARY

The death has occurred of Mr. Charles G. Soutar, F.R.I.B.A. (Retired), F.S.A. (Scot.), at his home in Forfar. Mr. Soutar was 74.

#### CORRECTIONS

We wish to apologise to Mr. William S. Bryant, A.R.I.B.A., for a printer's error in last week's caption under the perspective of Westminster Abbey Annex, in which he was described as "junior" architect-in-charge instead of senior architect-in-charge.

In the articles on the Diving Board and Studies for Bryanston School published in last week's issue no framework was done by Messrs. Boulton and Paul. The framework of the diving board was by Messrs. Stewart and Lloyds.

### COMING EVENTS

#### Housing Centre.

December 9 at 4 p.m. Special Meeting on Modernization of Alms Houses. Invitations from Mrs. Ellis, c/o The Housing Centre, 13, Suffolk Street, Haymarket, S.W.1.

December 11 at 2.30 p.m. Special Meeting on Fuel Policy for Housing. Chairman: Viscount Ridley.

#### Royal Institute of British Architects.

December 9 at 6 p.m. "Inigo Jones: Architect and Man of Letters," by Professor Rudolf Wittkower, at 66, Portland Place, W.1.

#### London Master Builders' Association.

December 10 at 12.45 p.m. General Meeting of Area No. 1 at Derry & Tom's Restaurant, Kensington High Street, W.8. Meeting will be addressed by Mr. H. T. Burke, F.I.Q.S., who will speak on the subject of Contract Claims—Their Preparation and Negotiation.

#### Royal Society of Arts

December 10 at 2.30 p.m. The First Alfred Bosson Lecture, "Cheaper Building: The Contribution of Modular Co-ordination," by M. Hartland Thomas, O.B.E., M.A., F.R.I.B.A., M.S.I.A., Chief Industrial Officer, Council of Industrial Design. Howard M. Robertson, M.C., A.R.A., S.A.D.G., President, Royal Institute of British Architects, will preside. At John Adam Street, Adelphi, W.C.2.

#### Institution of Structural Engineers.

December 11 at 5.55 p.m. "Pre-stressed Concrete Bridges and Other Structures," by Donovan H. Lee, B.Sc., M.I.C.E., M.I.Mech.E., M.Am.Soc.C.E. (Member of Council), at 11, Upper Belgrave Street, S.W.1.

#### Victoria and Albert Museum.

December 10 at 6.15 p.m. The Centenary of the Victoria and Albert Museum, by Sir Leigh Ashton, F.S.A., Director of the Museum, at Victoria and Albert Museum, S.W.7.



## CORRESPONDENCE

## Close Tendering

To the Editor of A. & B. N.

Sir,—Correspondence has recently appeared in your columns on the matter of close tendering, and more recently a question has been asked in the House pertaining to the "Builders' Conferences."

I have recently invited four tenders for a steel erection contract, and the four tenders, when received, were found to be as follows:—

	£	s	d
No. 1	25,843	7	0
No. 2	25,843	7	0
No. 3	25,843	7	0
No. 4	25,843	7	0

This might be coincidence, but I really feel that it is collusion, and, as such, a conspiracy by the trade against the buying public.

I am, etc.,

ARTHUR H. RUSSELL.

## House or Building

To the Editor of A. & B. N.

Sir,—I venture to suggest that the legal note about Birch v. Wigan Corporation (*A. & B. N.*, p. 651), particularly the third paragraph, overlooks sub-section (3) of Section 11 of the Housing Act, 1936, whereunder a local authority may, in lieu of demolition, accept an undertaking that the house shall not be used for human habitation. The adoption of this alternative procedure is common practice.

I am, etc.,

FRANK REYNOLDS,  
Deputy Town Clerk,  
Deptford.

## Development Charges and Claims on the £300 Million

A leaflet has been issued by the Central Land Board describing the immediate effects of the Town and Country Planning Bill now before Parliament so far as it concerns the relations of the public with the Board. The leaflet is as follows:—

## Development Charge

The Bill proposes that no development charge shall be payable on any development started on or after November 18, 1952 (the date of the introduction of the bill), except where it has been included in a determination of development charge or an application for determination with other development begun before that date.

The Central Land Board have been requested by the Government to suspend the assessment and collection of development charge in respect of development that will not be liable to charge under the terms of the Bill. The Board have therefore decided to give, in cases covered by the Bill, consent in writing to proceed with development without prior determination or satisfaction of development charge.

Development charge in respect of any development started before November 18 is not repayable.

## Claims

The £300 million set aside under Section 58 of the 1947 Act is not to be distributed, but the Bill provides for claims to be satisfied "in such manner, in such cases, to such extent, at such times and with such interest as may hereafter be determined by an Act of Parliament passed for that purpose." The Government's present intentions for the payment of claims are indicated in a White Paper (Cmd. 8699—H.M.S.O., price 6d).

It follows that claims already determined should be preserved, and the Board will finish the assessment and determination of claims still outstanding.

## Non-Traditional Houses

The Circular No. 84/52 sent to all housing authorities in England and Wales by Mr. Harold Macmillan, Minister of Housing and Local Government, says:—

The Minister wishes to stress again the advantages in cost and speed that contractors can give authorities if they are assured of continuity of work sufficiently early to be able to keep their organization intact and their equipment fully employed. Moreover, the larger the authority's programme the greater the need to acquire sites and finish the site works well before the contractor is due to start the erection of the houses. "Follow-on" contracts imply negotiated contracts but a check on prices can be obtained by putting a proportion of all contracts out to competitive tendering.

Continuity is of particular importance in the placing of contracts for houses to be built by the new methods. To help to maintain a balanced production from the special equipment used either in the factory or on the site, most contractors for these houses are willing to offer a reduced price per house for a "follow-on" contract provided they are given notice of this soon enough before the previous contract is due to end. For some systems as much as ten months' notice is desirable, for maximum efficiency, economy and speed.

Authorities will be aware that all these new systems of construction are designed to realize the benefits of large-scale production methods in factory or on site. They nevertheless offer a satisfactory range of types from which a few can be selected and, with due attention to lay-out, arranged to good effect. The Minister understands that, even so, authorities continue to ask contractors to make variations or additions to their normal designs or fittings—alterations which cannot be vital but inevitably interrupt the production flow, slow up completions and add to costs. He hopes that authorities will give this matter serious attention and instruct their architects and officers that no variation from the plans and specifications offered by the contractor should normally be asked for.

The Minister regards it as extremely important, on the other hand, that architects advising local authorities should pay close attention to the lay-out and landscaping of housing schemes, whether these be composed of tradi-

tional or non-traditional houses or a mixture of the two. In his view, there is still much room for improvement in this respect. It is well established that pleasing estates can be obtained with houses of two or three types, provided they are well grouped; and, conversely, that a monotonous effect can be produced with bad lay-out and little or no attention to landscaping however varied the house designs may be.

## IN PARLIAMENT

## Materials Get a Minister

The Cabinet changes which Mr. Churchill announced on Nov. 24 bring Sir Arthur Salter, the portfolio of Minister of Materials, in place of that of Minister of State for Economic Affairs. Hitherto Viscount Swinton, whose office was Chancellor of the Duchy of Lancaster, had been in charge of the department, and was Minister in effect if not in name. This dual responsibility has now been ended, with the transfer of Viscount Swinton to be Secretary of State for Commonwealth Relations, and the Ministry of Materials gets a political Chief to itself for the first time since it was established in 1951 by the Labour Government. Mr. Richard Stokes, who was then given charge of it, also held the post of Lord Privy Seal.

## Fumes Round St. Paul's

The Minister of Fuel and Power told Sir Edward Keeling that the new power station at Bankside was not yet in operation; but when it was the station was expected to consume annually about 40,000 tons of fuel oil, containing about 1,600 tons of sulphur which would form about 3,200 tons of oxides on combustion; about five per cent would be discharged into the atmosphere. Sir Edward asked if he was satisfied that these oxides—and still more when the power station was completed, that was, doubled—would not harm St. Paul's. Mr. Lloyd said he did not know that he could give an unqualified undertaking on that. The Fuel Research Station, the British Electricity Authority, and the authorities of St. Paul's Cathedral were installing special instruments to measure the amount of sulphur dioxide discharged. (Nov. 24.)

## Damage at Hampton Court

The Minister of Works, in a statement on the recent fire at Hampton Court Palace, said it occurred in the west wing of Clock Court, where restoration of the structure and re-planning of the apartments had been in progress for some time. The cause was not yet known. Five rooms were gutted, and 12 more were damaged in varying degree by fire or water, none of them state rooms at present open to the public. One valuable plaster ceiling was damaged, but he expected to be able to restore it. Otherwise, no

artistic or historic treasures were damaged. The total loss was very roughly estimated at £12,000. (Nov. 24.)

### Steel Industry Development

Mr. George Strauss asked the Minister of Supply what was the total estimated cost of development schemes to which the iron and steel industry was committed, and the estimated cost of such schemes approved by the Iron and Steel Corporation. Mr. Sandys informed him that since the war the industry had entered into commitments in respect of schemes costing just under £400 millions, of which about £320 millions had already been spent. This included schemes approved by the Corporation amounting to about £65 millions. In addition, there were certain other schemes to which approval had been given so recently that no commitment had yet been entered into. (Nov. 24.)

### Bombed Cities' Allocations

Details of the distribution among the bombed cities of the £4,500,000 allocated for reconstruction work next year has been given by the Minister of Housing and Local Government (Nov. 25). It will be understood, he states, that the amount of work now in course of construction, which will be carried over to 1953 varies from city to city. Additional authorizations are being distributed to secure the completion of new and old work in each city in accordance with the following list, and the local councils are being informed accordingly:—

	£
South Shields	100,000
Sheffield	350,000
Hull	400,000
Great Yarmouth	25,000
Lowestoft	25,000
Norwich	150,000
Portsmouth	400,000
Southampton	350,000
Bristol	350,000
Exeter	300,000
Plymouth	400,000
Swansea	300,000
Birmingham	250,000
Coventry	400,000
Liverpool	300,000
Manchester	250,000
Canterbury	100,000
Dover	50,000
	<hr/>
	£4,500,000

### Repair Work

Mr. King asked the Minister of Works whether he would consult the appropriate local authority before applying his proposed new limits of repair work permitted to builders in any area. Mr. Eccles refused to do so, stating that while local authorities would naturally advance views based on their own areas he had to consider the building industry as a whole and to make an instrument which defined the same limits for everybody. His decision was

taken after consultation with the industry and with the Minister of Housing and Local Government. (Nov. 25.)

### District Heating Report

Mr. Parker asked the Parliamentary Secretary to the Ministry of Works, as representing the Lord President of the Council, whether the report on district heating schemes had yet been received; and what action he proposed to take on it. Mr. Molson stated that the report, by the heating and ventilation (reconstruction) committee of the Building Research Board of the Department of Scientific and Industrial Research had been received. It would be published as soon as possible as Volumes Nos. 31 and 32 in the series of Post-War Building Studies. (Nov. 27.)

### Unpaid Development Charge

Mr. Poole asked for a statement about development charges which had been assessed since the announcement of the proposed amending legislation and which were unpaid. Mr. Marples, Parliamentary Secretary to the Ministry of Housing and Local Government, said the Bill introduced on Nov. 18 proposed to free from development charge all development begun on or after that date. The Central Land Board had been asked to suspend the collection of development charge in these cases pending the passing of the Bill. It was only in cases not affected by the Bill—where development began before the date mentioned—that development charge was still being assessed. (Nov. 25.)

### Deferment of National Service

THE following arrangements have been agreed between representatives of the R.I.B.A. and the Ministry of Labour and National Service for the deferment of students of architecture.

#### 1. Students pursuing full-time courses at Universities, Technical Colleges and certain other Further Educational Establishments.

Students who are already undergoing full-time training in architecture or who have been accepted for admission to a full-time course may be granted deferment for the period necessary for them to complete the full normal course up to the Final Examination, or to prepare for the Intermediate Examination by full-time study and afterwards to proceed to employment in an architect's office and prepare for the Final Examination by part-time, or spare-time study.

In order to qualify for such deferment the student must commence the full-time study of architecture before his 18th birthday or within three months of any deferment he may have been granted to remain at school.

Application for deferment in respect of a full-time course in architecture must be made in duplicate on form

Misc. 20 to the appropriate University Joint Recruiting Board. Full details of these arrangements have been notified to the Headmasters and Principals of the Technical Colleges and similar institutions, from whom copies of the form and address of the Joint Recruiting Board are obtainable.

Students who successfully complete a course of full-time study to the Intermediate stage and who then wish to complete their training as architects by employment in an architect's office combined with part-time study for the Final Examination will be eligible to apply for further deferment to enable them to complete two years' practical training and to sit for the Final Examination not later than the first opportunity after the expiry of two years. Shortly before they are due to complete the Intermediate course of full-time study such students should submit a fresh application, on form N.S. 294, for the further deferment necessary to enable them to pursue their period of practical training in an office and undertake a course of part-time study. This application should be submitted in accordance with the directions printed on the form (which can be obtained from any Local Office of the Ministry of Labour and National Service), and should be accompanied by a letter drawing attention to the fact that the student has hitherto been deferred as a student of architecture for a full-time course up to the Intermediate standard.

#### Deferment of candidates preparing for the Examination in Professional Practice and Practical Experience

Extension of deferment for a period not exceeding twelve months will be granted to those candidates for the Associateship R.I.B.A., who, after passing the R.I.B.A. Final Examination or a Final Examination at a School of Architecture recognized for exemption from the R.I.B.A. Final Examination qualifying for the Associateship, wish to obtain practical training before sitting for their Examination in Professional Practice and Practical Experience. Application for such extension of deferment must be made to the National Service Deferment Boards on form N.S. 294, and must be accompanied by a certificate confirming that a period of approved practical training is being undertaken before taking the Professional Practice and Practical Experience Examination. This certificate will be supplied by the R.I.B.A. in the case of those candidates taking the R.I.B.A. Final Examination, and by the Heads of the Schools of Architecture in the case of students qualifying by means of a school course recognized for exemption from the R.I.B.A. Final Examination.

Students should apply for this extension of deferment immediately they have sat for the Final Examination of the R.I.B.A. or at a Recognized School of Architecture, stating that they will forward a certificate of success in the examination as soon as the results are known.

[Continued on page 672]

# LABORATORIES FOR THE BREWING INDUSTRY RESEARCH FOUNDATION

AT NUTFIELD, SURREY

ARCHITECTS:

EASTON AND ROBERTSON

**T**HE Laboratories for the Brewing Industry Research Foundation have been established by the conversion of a Victorian Mansion at Nutfield in Surrey.

The stability of the building was such that it has enabled spacious Laboratories to be placed on the Ground and First Floors without any strengthening of walls or floors, and the Foundation is now equipped to promote investigations allied to fermentation and brewing within the various sciences, analytical organic and physical chemistry, together with biochemistry, microbiology, bacteriology and ancillary subjects which comprise its field of study.

The Research work demands all the usual Laboratory services, hot and cold water, vacuum, compressed air, electrical supplies and chemical drainage.

The Microanalytical, Applied Laboratories and all other Laboratories fitted with Fume Chambers are air conditioned. This plant, together with the fans for the extract system for the Fume Chambers and Lavatories are housed in the roof space. The Heating and Hot Water is supplied from gas-fired boilers. The Boiler Room, the adjacent Media Preparation, and Constant Temperature Rooms being a new structure adjoining the base of the existing water Tower.

The flue and main service risers from the Boiler Room have been taken up through the floors in a corner of the Water Tower in an asbestos flue, with the discharge entirely screened from view.

The heating in the Laboratories is provided by heating panels fixed to the ceiling.

A number of windows were replaced and some additions made and Carda windows were installed in these positions.

The Laboratory Benches are constructed in such a manner that they can be, by a very limited amount of dismantling, pulled away either from the walls or central positions in the Laboratories to provide unrestricted access to the main supply lines to the several services running round the walls of the Laboratories. Connections are available at regular intervals in order that changes in set-up of benches, etc. may be made and high pressure rubber hose is used to make the connections from the supply lines to the taps. Waste pipes from the sinks discharge into the Chemical drains through Neoprene lined delivery hose.

The bench tops are formed in structural Holoplast with teak fillets on the edges.



*Lyttel Hall before conversion.*



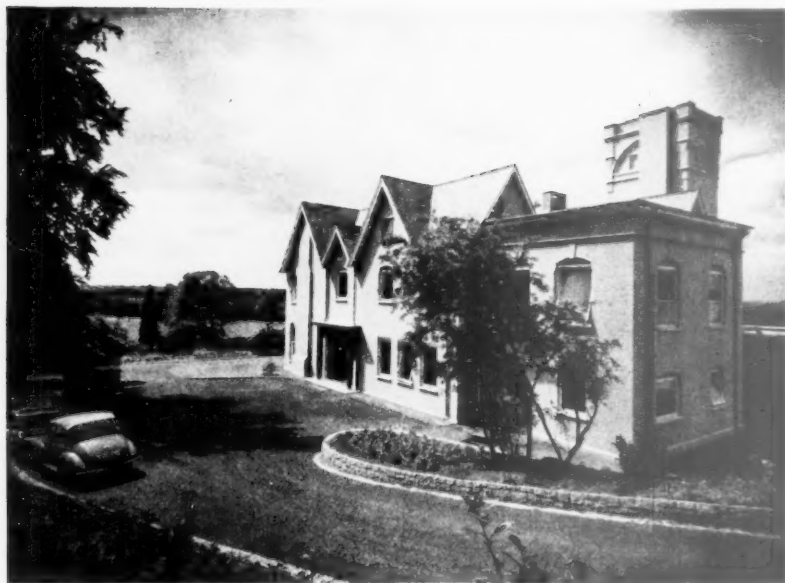
*Lyttel Hall after conversion into main laboratory block.*

The cupboards and other under-bench fittings have been designed on the unit principle and are finished with a veneer of Formica on the outside and a compensating veneer of Holoplast on the inside of all cupboard doors and drawers. Splash backs and the insides of Fume Chambers are also protected by a veneer of Formica on laminated boards.

The Library has been installed in the Drawing Room in which the original fireplace, flooring and cornices remain. The fittings, tables and chairs have all been designed by the Architects and made in African Walnut.

The exterior of the mansion was in a number of varying colours of brick and in order that these, and also the new work after additions and alterations had been made should be harmonious, the whole of the exterior was painted with Stic B finished in a tone of light grey.

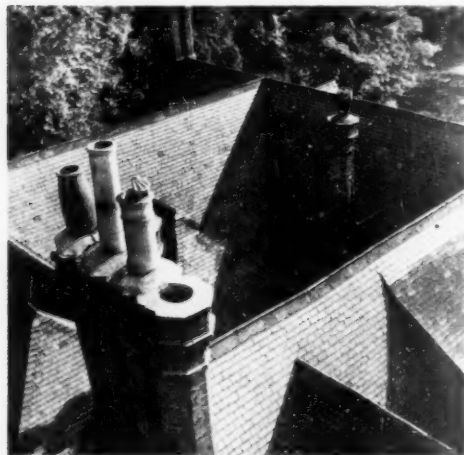
A number of small outbuildings were removed with the exception of a squash court which was converted into an Experimental Brewery complete with Air Conditioned Fermentation, Conditioning and Bottling Rooms. The Air



The Brewing Industry Research Foundation, financed by the brewers with the purpose of pursuing pure research, has equipped one of the first research laboratories in the country. Of course, the emphasis is on yeast and enzymes and the proteins and sugars of barley and malt and hops. The Brewing Industry Research Foundation houses the National Collection of Yeast Cultures, quite a responsibility as the 361 yeasts have to be kept alive. Penicillin, streptomycin, aureomycin and a whole range of antibiotics have been obtained from fungi. Sir Ian Heilbron, the distinguished organic chemist, predicts that there are even greater possibilities in the yeasts.

(Acknowledgments to the New Statesman & Nation for facts taken from article by Ritchie Calder, 4.10.52)

Raid Shelter has been formed into a store for inflammable and dangerous chemicals with automatic fire protection.



One of a series of progress photos used where measuring up presented difficulties in connection with penetration of the roof for inlet and extract openings.

The Stable Block conversion provides Laboratories for Electrophoresis, Ultra Centrifuge and Instrument making. A large central covered space is available for the study of brewing refrigeration and plant engineering problems.

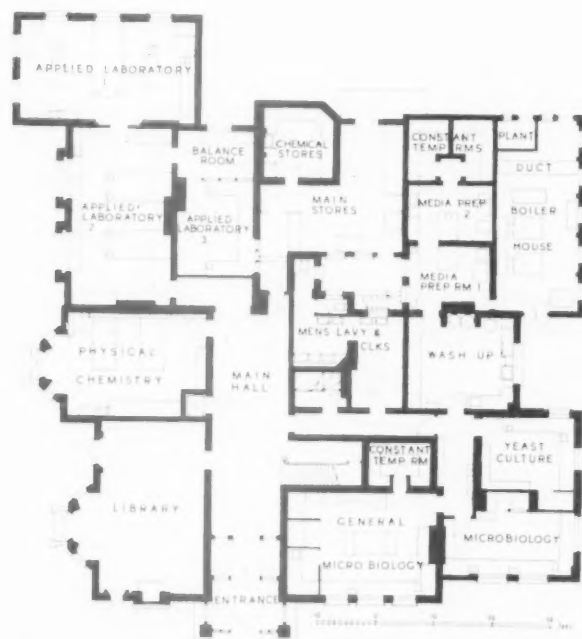
The several farm buildings were mostly beyond economic repair or re-use and were demolished giving an area on which a canteen has been built. This building contains Dining and Lounge spaces for Scientific and non-Scientific Staff, a small private Dining Room and a fully equipped Kitchen. The exterior is faced with light Saxon Flettons with Portland Stone copings and wooden windows painted ivory.

#### LABORATORIES FOR THE BREWING INDUSTRY

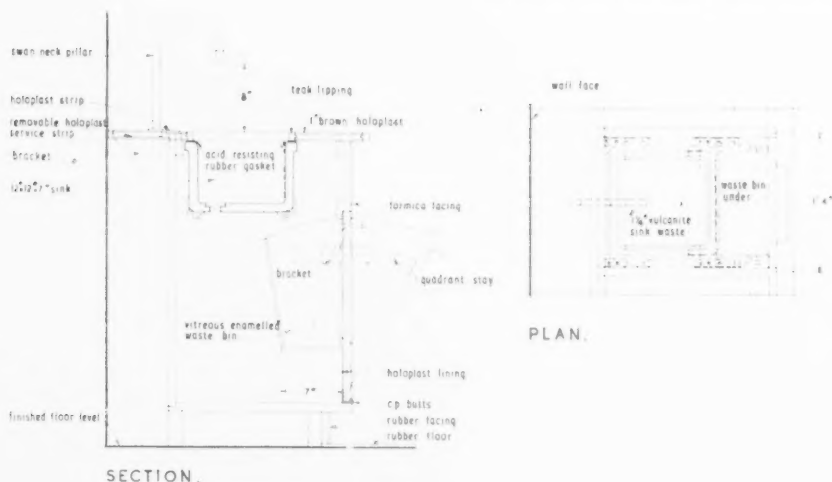
ARCHITECTS: EASTON & ROBERTSON. CONSULTING ENGINEERS: A. H. BARKER & PARTNERS. QUANTITY SURVEYORS: HAMILTON H. TURNER & SON. GENERAL CONTRACTORS: R. B. BURDEN LTD. Bricks: The London Brick Co. Ltd. Asphalt: The Val de Travers Asphalt Paving Co. Ltd. Cork Floors: Geo. Stephenson & Co. Ltd. Drives and Paths: Colas Ltd. Electric Light Fittings: Best & Lloyd Ltd. External Paint: Stic B Paint Sales Ltd. Floor and Wall Tiling: Bleakley & Co. Ltd. Furniture and Furnishings: Heal & Son Ltd., Race Furniture Ltd., Russell Furnishings Ltd., E. Horace Holme Ltd., Trollope & Sons (London) Ltd. Heating, Ventilation, Electrical and other Engineering Services: Matthew Hall & Co. Ltd. Internal Paint: I.C.I. (Dulux). Ironmongery: N. F. Ramsay & Co. Ltd. Kitchen Equipment: W. N. Fray & Sons Ltd. Laboratory Benches, Library Fittings: Trollope & Sons (London) Ltd. Laboratory Sinks etc: John Bolding & Sons Ltd. Lantern Lights: Haywards Ltd. Metal Windows: Crittall Manufacturing Co. Ltd. T. & W. Ide C. E. Welstead Ltd. Plastic Floor Tiling: Thomas De La Rue & Co. Ltd. Refrigeration: J. & E. Hall Ltd. Rubber Floors: Dunlop Rubber Co. Ltd. Terrazzo Floors and W.C. Partitions: Diespeker & Co. Ltd. Wood Block Floors: Hallis Bros. Ltd. Wood Windows: Halcon Ltd.



PLAN OF MAIN BUILDING: FIRST FLOOR



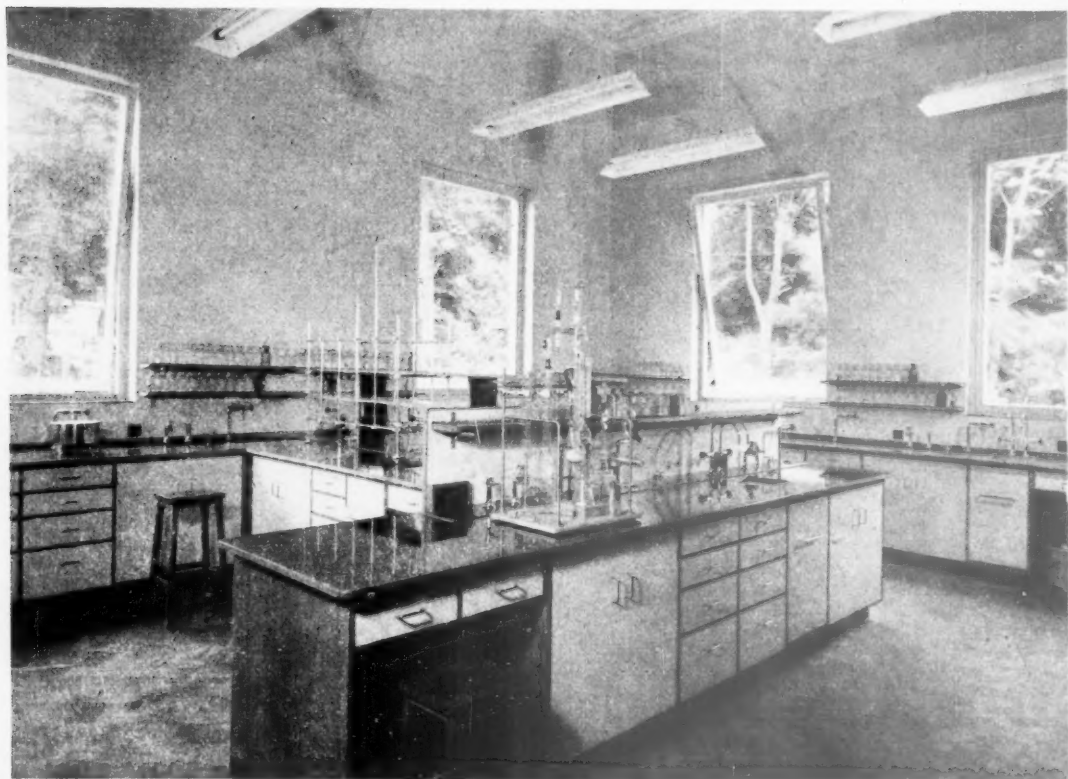
PLAN OF MAIN BUILDING: GROUND FLOOR



SECTION.

DETAIL OF TYPICAL BENCH SINK AND WASTE BIN

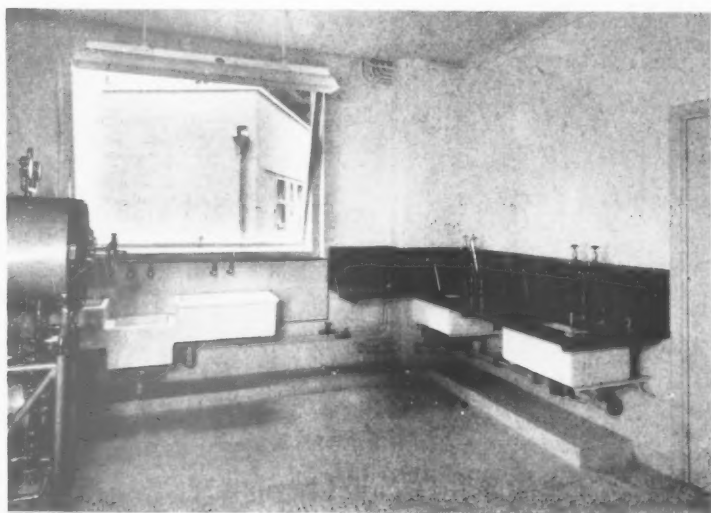
## MAIN ORGANIC CHEMICAL LABORATORY



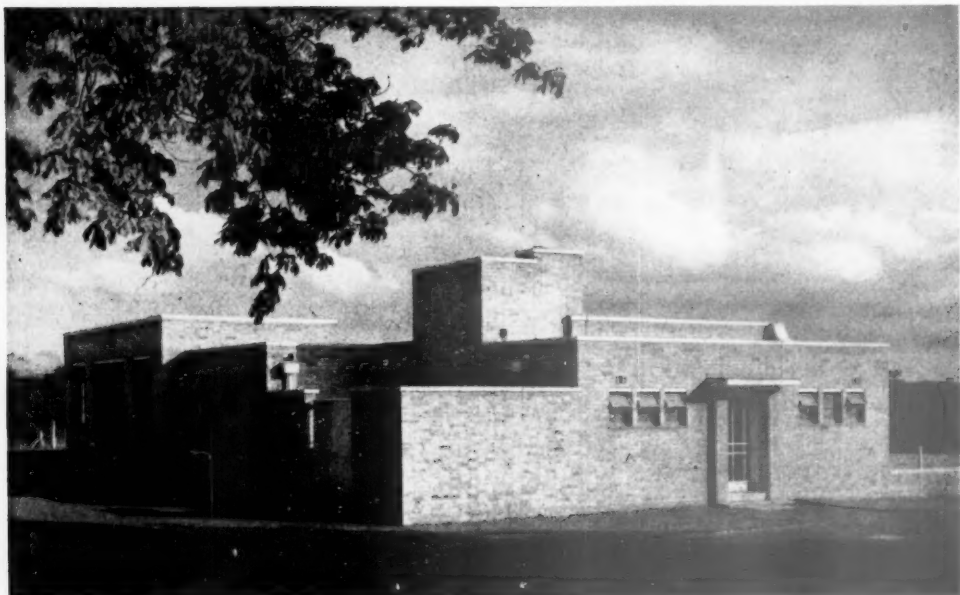




MAIN BUILDING: THE LIBRARY



MICROBIOLOGICAL SERVICE ROOM

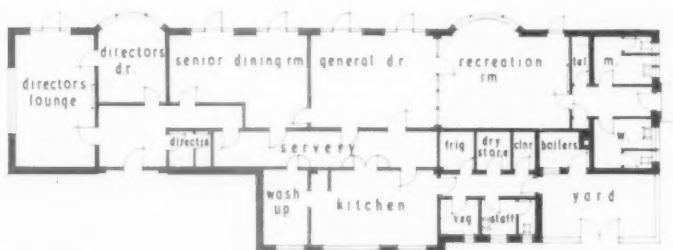


THE CANTEEN: NORTH ELEVATION

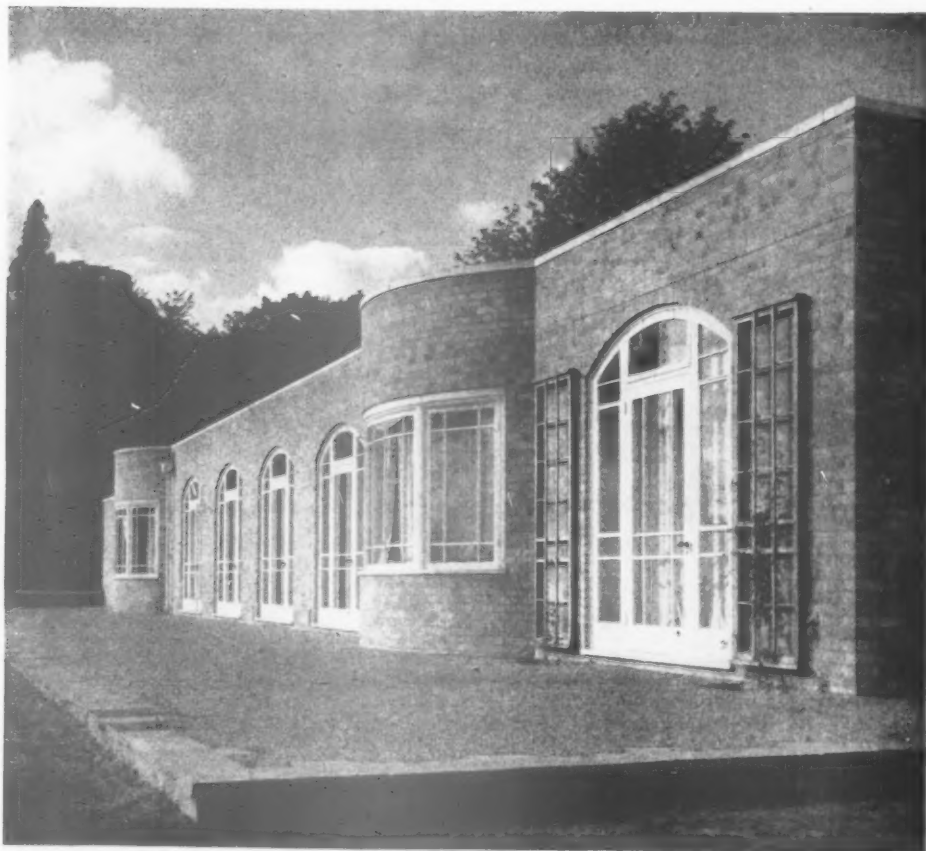
CANTEEN: LOUNGE AND DINING ROOM

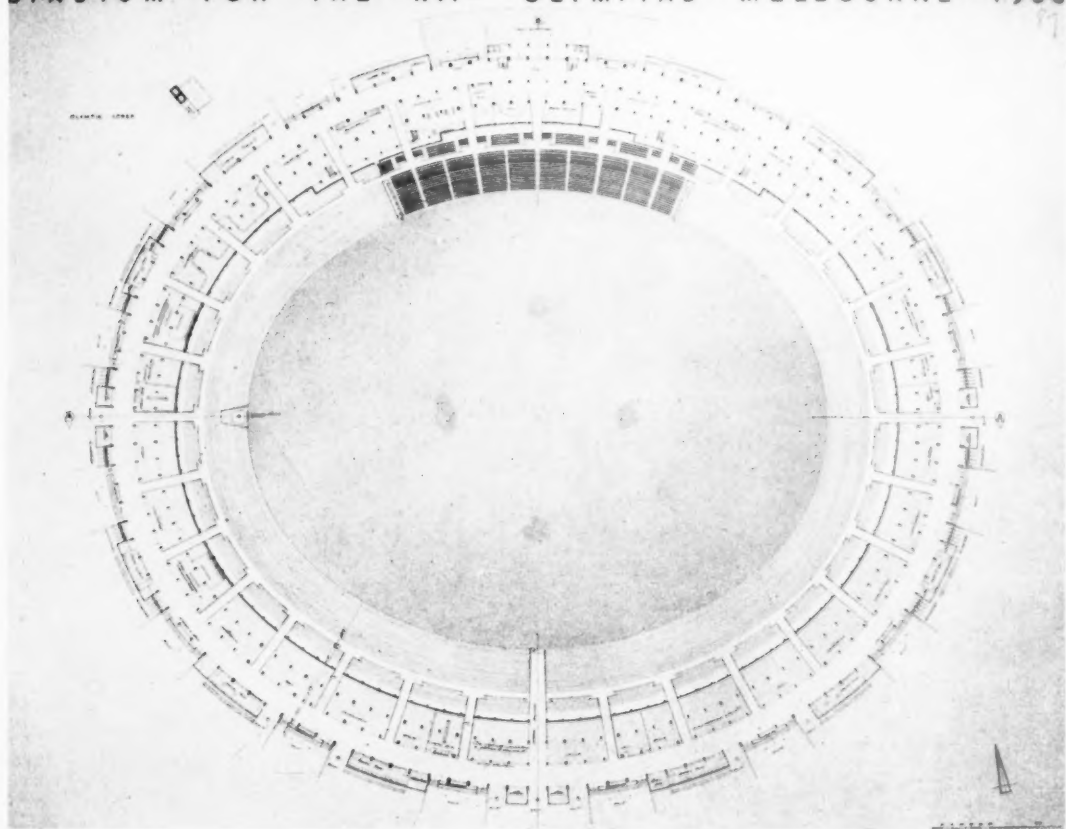


LABORATORIES FOR THE BREWING INDUSTRY  
ARCHITECTS: EASTON AND ROBERTSON



THE CANTEEN



STADIUM FOR THE XVI<sup>TH</sup> OLYMPIAD MELBOURNE 1956

## Design for Melbourne Olympic Stadium

**W**INNING design in the competition for an Olympic Stadium for 1956 conducted by the Royal Australian Institute of Architects gained for the office of Frank Heath, 44-year-old Melbourne architect and town planner, the commission to build the stadium, at a fee of £A66,000.

The stadium, will be built on the site of Carlton oval in a parklands region across the northern approach to the city of Melbourne. The Architect expects to have full working drawings and specifications ready for construction to go ahead before the middle of 1953. The stadium will take two years to build.

From 115 entries a panel of assessors nominated by the R.A.I.A. selected six finalists. Each of these gained an honorarium of £A500 and the right to submit completed drawings for the second stage of the contest.

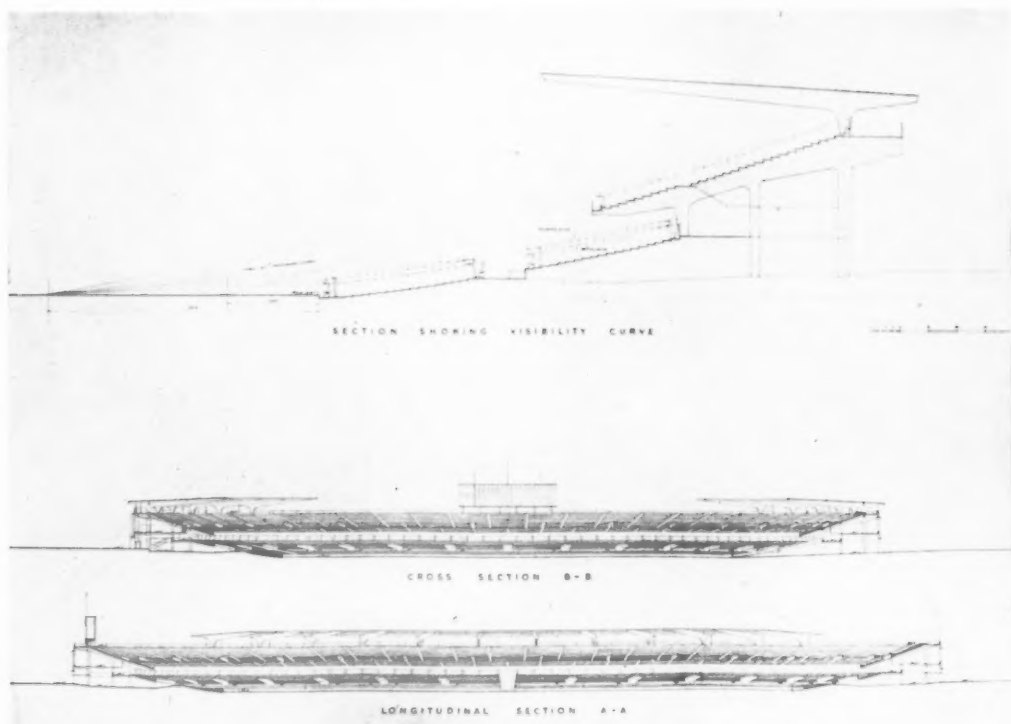
Although the design from Heath's office was unanimously adjudged best of the six, it is not necessarily the last word on the final design to be adopted for the stadium. This is expected to be modified by features selected from some of the others.

The five other finalists were John C. Barton; Bates, Smart and McCutcheon; and Stephenson and Turner, all of Melbourne; Keith W. Payne in collaboration with Bruce P. Shaw, of Sydney; and the firm of Stephenson and Turner, Sydney.

Mr. Heath submitted his design as a "combined operation" by himself and his architectural team. They already had their hands full planning a new city dental hospital and working on a substantial commission for a State housing body. So the Olympic stadium entry was largely a spare-time job which kept them working back into the early hours of the morning for three months and right through the night before entries closed.

The architects who worked with Mr. Heath on planning and design were E. Parry-Fielder, G. M. Hirsch, J. Millot, J. McColl, O. Yakas, and G. Ingram. Rendering was handled by D. Harman and A. Bennett, and structural by R. Hardcastle.

Frank Heath graduated in architecture from the University of Melbourne. He has practised in Melbourne for 15 years. He is a fellow of the Royal Australian Institute of Architects, an Associate of the Royal Institute of British Architects, and



one of the few Australian members of the Town Planning Institute of London.

Recently he became the first winner of the Sir James Barrett memorial medal for a notable contribution to planning. He has travelled widely studying architecture and town planning in Europe, Britain, and the United States of America.



Photos: Neil Murray

Conditions for the competition required economy of design and construction. Observing these requirements, Heath's design is on strictly functional lines and provides for accommodation for 125,000 spectators—50,000 seated and 75,000 standing with about half under shelter. It allows for all standing areas to be converted to seating without structural alteration.

The stadium will be built partly of steel reinforced concrete and partly of prestressed concrete, with an upper tier of seats completely surrounding the oval. The cantilever projection of the upper tier over the lower tier brings a large proportion of the spectators about 30 feet nearer the arena.

Construction adopted was of triangular box girders in preference to built-up I sections because this type was considered cheaper per ton to fabricate, resulted in the same total cost, and had the additional advantage of greater æsthetic appeal.

Roof construction is to be designed in steel and covered with corrugated asbestos cement sheeting. The cantilever roof projects 100 feet over much of the upper tier and could be extended to cover other sections.

The cantilever girders are spaced at 60ft centres and each supports a system of triangular steel purlins. Each girder has a load of 250 tons on a steel pin, transmitting the load to the reinforced concrete structure below. This method was considered the most economical one of resisting the large overturning moment by confining the action of the forces within the heavy top beam structure.

Smooth movement of spectators was one of the main factors that had to be considered. Almost 1,000 feet of entrances controlled by turnstiles are grouped around the stands which can be cleared in 10 minutes. The turnstiles can be raised mechanically to clear the exits.

Four dressing rooms, each about 2,500 square feet in area, with attached gymnasiums, showers, baths, massage baths, and brine baths, will provide for the big assembly of contestants on the opening day of the Games.

Normal provision will be made for 200 Press representatives, but it will be designed to be expanded to provide office space for up to 1,500 during the Games, with facilities for radio, television, and photographers.

The design envisages a restaurant seating 1,500, detached from the main stadium.

The oval-shaped arena will be 615 feet by 490 feet. The shape is dictated by the requirements of cricket and Australian national code football, for which the stadium will be used after the Games.

A feature of the design is a 250 feet concrete Olympic tower, with two 20-passenger lifts to carry visitors to the top. The designers propose that the Olympic torch, after being lit on the arena on the opening day, should be carried to the top of the tower and left burning there for the duration of the Games.

Two other big projects Melbourne will undertake for the Games are a new Olympic pool, and an Olympic village of 600 houses to accommodate officials and contestants. Estimated to cost £A1,500,000, the village will be designed to house 6,000, and like Helsinki's Olympic village, will be turned over to the community for private housing after the Games.

JOHN LOUGHLIN

## ARCHITECTURE—TRADE, PROFESSION OR CALLING?

*A Talk Given by SIR OWEN WILLIAMS, K.B.E.,  
on November 26 at the Architectural Association*

SIR OWEN WILLIAMS: I am very pleased to be here to-night for the Chairmanship of your President, who is a great friend of mine. That gives the occasion to me a peculiarly personal flavour, without which there is nothing much that is worth anything.

To proceed, I should like to begin at the beginning. That seems very trite, but the funny thing is that nobody ever does that. People always advance along a road, make a mistake, wonder where they have got to, and then proceed again, but they do not go back.

It is the essence of originality to begin at the beginning. People have an idea that an original mind is a mind that goes into a trance and throws out some extraordinary aurora of dreams and fancies. Nothing of the sort! The original mind goes back to the beginning—seemingly not difficult, and yet, curiously, not observed. People do not go back to the beginning. It is one of those cases where the obvious is the most obscure. The obvious thing always is to go back to the beginning. The essence of originality is to find first causes, not to go into dreams and trances, and that is why, in a curious way, there is a Book of Genesis—the beginning.

The Book of Genesis can be thoroughly recommended as a very short course in design. It does not take five years to read it; it can be done almost in five minutes if one is quick. When you start off, you read: "And God said, Let there be light: and there was light"; and when He saw it, He found "that it was good." At the end of six days, He found "it was very good," and He took a day off. That is the exact opposite to the conception of design as we see it to-day.

Nowadays, we imagine that we have got to produce a Press conference and a perspective and that we will proceed to develop a beautiful object. You spend five days on it. At the end of five days you are sick to death of it, and you take two days off. That is the difference between the God-like and the man-like approaches to design.

Even in the Book of Genesis they stumbled and tumbled very quickly into the errors of our age. It only took, I think, about 11 chapters before you meet the jerry-builders of Babylon. They said: "We have brick instead of stone; we have slime instead of mortar." You can be quite sure that

they were all annotated and delivered with appropriate specifications and practices for the Ministry of Works and everybody else, telling you what you could do with these materials; and I should think that that was the earliest known reference in history to substitute materials.

So with these substitute materials, they then held a Press conference, and they next announced and issued the agreed statement. They said: "Go to"—not "Go to it"; that would have been too up-to-date by far. We have heard a lot of the profound slogans like "Go to it," but they said: "Go to, let us build us a city and a tower"—there must be a tower—"whose top may reach unto heaven; and let us make us a name." You have there the whole paraphernalia of modern town planning as witnessed to-day: the preparation, the "us's," the tower, the point of interest striking up to the sky, and "let us make us a name." Well, the Lord came, and he delivered these people to the four ends of the earth and they left off building that city. That is the history of the first new town.

They acclaimed the Lord. In actual fact, where they had made a mistake was that they had not observed the proper proportions of the slime that they used in the mortar. They had not got Class A; they only had Class B2 slime, with which they built the tower, and so the tower fell down. That really was the judgment of God on them. That is the Book of Genesis. The Book of Genesis tells you to begin at the beginning.

The beginning of all things is really a word: "In the beginning was the word." Words to me are an extraordinary phenomenon in that we use words daily, and the more we use a word the less we understand it. If it is an unusual word, we look it up. If we say a word that is used day by day, we just accept it. We are, all of us, in a state of confusion on the meaning of words. Dear old Confucius, when he was asked how to govern a city, said: "The first thing I should do is to understand words, so that the people can really understand them and know what I am talking to them about."

It is astonishing how words, words which we use daily, and intimately and very meaningfully, are never understood accurately by anybody. I once challenged the directors of a timber com-



pany, who were celebrating their centenary, that they had never looked up the word "timber." Well, they had not, and they were surprised to learn that the word "timber" has nothing whatever to do with wood. Timber is any material suitable for building a dwelling. It is the word *zimmer* in German—"the dwelling." It really became synonymous for certain profound reasons, and when you begin to examine that word you begin to understand the difference between the organic and the inorganic in your surroundings and the desire for people to have the organic rather than the inorganic around them. That is a very good example of how a word has lost its meaning originally and yet comes back to it. It still has that original meaning in these days, and we must find the why and the wherefore of that original meaning.

Another very good word which is becoming more and more important at the present time is the word "idiot" and its meaning. The word "idiot" only means "a private person not occupying public office." In spite of the fact that we all regard "idiot" as synonymous with "fool," we do not quite mean that when we talk about the village idiot. The village idiot is the only man in the village we can guarantee is not on a council, and he is the only man who can give a real, clear, short description of the activities of everybody in the parish, because he has no axe to grind and has no official position to observe.

How did the original meaning of the word "idiot" arise? There was a time in Greek history rather similar to our own, after many wars, when everybody felt that they were subject to tax and various other penalties. If they were persons on their own, they sought refuge in Government employment. Anybody who kept outside was an idiot. As a matter of fact, there are not many left. I did try to form an Idiots' Club, but the difficulty was that we had to make the terms of reference so wide to get any members at all, and it became more a legal matter of whether the ownership of a few war bonds made one an idiot, that it became impossible. We left that and decided that it could not be done. Those are the words, and the words are all the time controlling us, whether we want them to or not.

Many years ago a friend of mine was a consultant in Persia for the building of railways and all things of that sort to the extent of £30 or £40 million. He did not know Persian or anything like it, and there were the most extraordinary happenings. I asked him what language he had used. He said, "I worked it all out, and I found that

French was the only accurate language of contracts." I think that that is fundamentally why it is the language of confusion in diplomacy.

Leaving words for the moment, we come to the question of "Architecture—Trade, Profession or Calling." I have since thought that possibly I might have added another word: "Slavery," but we will deal with that later. Trade or Profession: why does it arise at this stage that one should even think about it? There are all sorts of thoughts stirring in people's minds. They talk to me about the American method of building buildings with a concern that gets everybody mixed up together—the lawyers and the architects, the engineers and the builders; it is all one thing, and they give a price.

As you know quite well, to define your own boundaries you have to define your neighbour's boundaries; that is a surveying proposition. We do not know where we are until we know where the man next door impinges upon us. And so it is the complementary nature of anything that defines what that thing is.

Dealing first with Trade and Profession, what is the complement of Trade and Profession? You come to Customer and Client, and then you get it a little simpler. What is the difference between a customer and a client? Fundamentally, the difference is that the customer is to be listened to, but the client has to listen to you. There is something extraordinary about the word "client." You can ask your Solicitor, who uses the word every day and addresses you "My dear Client." If you say to him, "Have you ever looked this up in the dictionary, what I am and what I do?" he will answer, perhaps, as mine did, "No, I have not. What is it?" "Well," I said, "a client is a person coming in great distress to listen. He must be ready to listen." A customer comes in no distress, and is not prepared to listen.

You have got to get the nature of the customer and the client accurately. The customer will always give a greater credit to where he places his custom than a client will ever give where he has placed his. The customer will always be quite prepared to drive around displaying the name "Rolls" or "Cadillac" and with advertising all over him, on his suit, in his pocket—everywhere. The customer is quite prepared to acknowledge where he has bought something. He is not only prepared to do that, but loves to do it.

But with an architect and his client the astonishing thing—and it is understandable—is that, as an architect friend of mine once said, "The client, the man you build the place for,

describes the thing to everybody and says 'Wonderful this and wonderful that.' Then somebody says to him, 'Did you have an architect?' and he mutters, 'Oh, yes. I had to have somebody to keep the builder in order.' When an architect gets a reputation—I am not being rude—for building an imposing house, a luncheon house, or whatever it may be, if a man goes to him for that particular house, he is a customer and no longer a client; that is buying from off the stocks, out of the drawer. That is different.

The difference between the two is that the customer has wants to be satisfied. The client has wants to be dissatisfied and needs to be met. You have got to stand as a barrier between his wants and prevent his wants ever existing. You have got to say, "Describe the whole thing to me, and you will see the answer: your needs will be met." He does not like it very often. There was one client of mine to whom I went to great pains to explain that a client was a person who came in great distress to listen. He said, "I have been in great distress ever since I met you, and I have been listening ever since." On the other hand, he is a good client and one of the best.

I remember a little story about what happened when I was having some doors painted. As you know, we always get fads—for example, if there was a door which you wanted people to go through, it had to be painted red; and those that we did not want them to use would be painted green. This was a very nice idea. That client came to me one day. He said, "I have been down to the building. There was a silly old fool there—" he did not say "idiot," because most of the people around the place were not idiots; they were all officials of the local corporation—"who said, 'Fancy that door, all red'; so I said to him, 'Silly fool. That is not finished—that is the undercoat.'" I said to this client, however, "I am sorry, old chap. That is the final coat. That is what it is going to be." He replied, "I have travelled a long way with you!"

I think I have exhausted the variations of Profession and Calling. The legal significance is enormous. I will give an example. No bank will ever call you a client; you are always a customer, the reason being, of course, that as a customer the article that is passed over to you is the contract. As a client, it is advice.

There is a very important legal difference between the two which distinguishes them. You have to remember that in a trade you can make a contract. In a profession, you can-

not—you make an agreement. A contract is for work performed; an agreement is only to do your best. Those are totally different things, but at the present time it is all muddled up. You will get contractors referring to their "clients." I always came a contractor if he talks about his client; I tell him, "It is the person you have contracted with. You cannot call them clients; you do not advise them." I know one firm who said they would sack anybody in the concern who ever referred to anybody as a client; they were all customers, because customers' wants had to be met; their needs were another matter. If they liked to put them forward, they would be considered.

When you get to the other thing—a Calling—some people to-day think that architecture is a calling. What do you need to make a calling? What you need is a disciple. I am quite sure that nobody has ever had a disciple who paid anybody for doing anything: disciples paid people with their obedience. That is quite all right, but when people to-day think of architecture as a calling, they expect also the five, six or seven per cent that they get anyway. So it comes back to something like one of one thing, and one of the other.

Then you get to this condition in which we find ourselves at the present time. That is, is anybody in distress, wanting to listen, or ready to listen? I am getting very political now. How can anybody else's wealth ever be in distress? Therefore, no public body ever can be in distress; no public body ever can be a client. Not being a client, they have got to be something. They are not customers, because you cannot throw them out. Therefore, they become masters, and as masters all that they need is, to put it mildly, a servant, or, to put it bluntly, a slave. That is what is happening.

We have the extraordinary condition where authority, with its vast sums of money, cannot be in real distress, as you and I would be if we were building a house. They look at it, they say that they and everybody else have passed it, that it is very difficult, and things like that—but they are not in that terrific state of distress. There is, however, a little gleam of light. They are getting in distress, and they might become clients in good time and in distress come to some sort of feeling that a little real professional advice, for their own good, without anybody thinking that they are customers, disciples or masters, would give them an accurate sort of view of the relationship of the building industry and all that its peculiar facts and fads mean to them.

And so this peculiar condition:

Architecture—Trade, Profession, Calling or Slavery. It depends upon the two sides. You cannot make a good client out of a rotten customer, and you cannot convert them. Therefore, there are two sides to them. I have often said to clients—after all, a good job does depend on having a good client as well as myself: "If you have got to play your part, you have got to have faith. You have to put your needs first, and not your wants. You are going to ask for a plan before a perspective. You are going to say not what it looks like, but 'How does it look?' and have it explained." That is a good client.

Then comes the question, What produces the best architecture? You cannot do it as a disciple or as a master, you cannot do it as a slave. You only do it professionally, meeting a man all square and saying to him, "Now, please put before me what you need. Do not describe to me in advance what you want, which is a totally different thing. Tell me what you need, and I will try to work it out in accordance with all the laws of rain falling on buildings and all the awkward things that have to be observed"—because, after all, if it were not for those, there would not be any buildings at all. If he is that kind of chap as a client, with the other person, acting perfectly professionally, having removed from his mind the desire for something which he has thought of in advance to push on to the man before he knows he has got the job—which is very often done—then I think that there is not just the hope, but there is the true path of architecture.

There is no doubt in my mind that we seem to be passing through very troublesome times. Really, of course, we do not know, because the times we live in are the times we live in, and for all the other times we only have hearsay; we have no knowledge of them at all. But other times might have been just like those we live in now.

I was interested in a quotation which said that, moved by the appalling possibilities of new-found weapons of destruction, the Pope issued a bull proscribing the use of a certain weapon amongst all Christian nations, under any provocation. That was in 1139, and it was about the cross-bow. When we think about atomic bombs and any other things, we are inclined to think that we are living in unusual and terrible times. The answer really is that we are living, and that as we are living we must find out what is the fundamental basis of living. To me, that is to find primitive reasons and causes, and through that to think rightly. And thinking rightly, you build rightly—and that is Architecture.

(Continued from page 660)  
DEFERMENT OF SERVICE

2. Deferment will also be granted, subject to certain conditions, to young men employed as pupils or assistants (whether articulated or not) in architects' offices who are bona-fide candidates for admission to the Register of Architects.

In such cases deferment may be allowed to give the pupil or assistant an opportunity of taking the Intermediate Professional Examination and the Final Professional Examination, Parts 1 and 2, and Part 3, Professional Practice and Practical Experience, provided that he can reach that stage before he will pass out of liability for national service. The age at which a man passes out of liability for national service is his 26th birthday. The student must satisfy the following conditions:—

(i) That his training in an office, or under the supervision of a practising architect, began before 18th birthday or within three months of any deferment he may have been granted to remain at school.

(ii) That he continues to be employed in the office, or under the supervision, of a practising architect.

(iii) That he is pursuing a suitable course of part-time study in preparation for the professional examinations, and is allowed by his employer time off in working hours to the extent of not less than eight hours a week, on average, during the course of his training, for the purpose of attending classes of instruction and/or private study in preparation for his examinations. Where no part-time day classes at a Technical College or Art School are available, private study should, if possible, be undertaken by a pupil or assistant in the office under the direction of the employer or a qualified member of his staff. In those cases where the pupil or assistant is able to attend evening classes in architectural subjects it should be possible for him to work in the office or design problems and exercises which form part of the evening course. The distribution of this time off from office duties will be a matter for arrangements between the employer and the student to suit their mutual convenience.

Architects' pupils and assistants desirous of deferment of call-up under this arrangement should make application on form N.S. 294, obtainable from any Local Office of the Ministry of Labour and National Service.

3. Periodical review of deferment. Where deferment is granted it will in all cases be subject to satisfactory progress in training and studies, and will be reviewed periodically by the University Joint Recruiting Board or National Service Deferment Board, as the case may be.

4. Application for Deferment. Application for deferment should be made on the appropriate form immediately after a student, pupil or assistant registers for National Service.

## Patients' Canteen Saxondale Hospital

RADCLIFFE - ON - TRENT

ARCHITECTS: BARTLETT,  
GRAHAM & GRAY, Dip. Arch., A.A.R., I.B.A.

THE Patients' Canteen at Saxondale Hospital, Radcliffe-on-Trent, near Nottingham was built for the Nottingham Area No. 4 Hospital Management Committee. The empty shell of a prefabricated concrete hut with exposed steel roof trusses existed on the site and the architects have planned the interior of the building and have replaced two bays of the existing exterior concrete wall by large windows and timber infilling.

The cost of the building was met by voluntary funds organized by the Friends of the Hospital.

### Plan :

The plan had to provide for two main sets of circumstances. The first condition applies on visiting days when large numbers of visitors and patients use the Canteen and when maximum sitting area is required. The second condition applies in the evenings when part of the building is used as a staff club-room and when the main sitting area may be reduced.

### Construction :

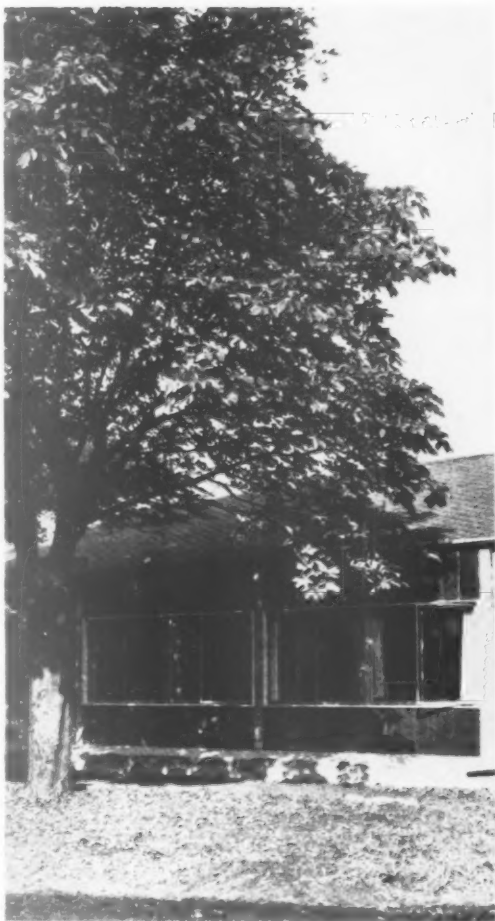
Internal walls are constructed in "Dunbriks" with the exception of the wall containing the Snack Bar counter. This wall is a timber partition faced with plasterboard. The new bays of external walling containing the large purpose-made metal windows are framed in timber and are finished in vertical weatherboarding.

### Finishes :

A patent suspended ceiling is used over the whole interior and is distempered.

Wall finishes include fair-faced brickwork in "Dunbrik" facing bricks, plaster surfaces painted in flat and gloss paints, and wallpaper.

The screen adjacent to the Bar and the glazed screen



External view of the two new bays of external walling.





*Interior view looking towards the Entrance Hall.*

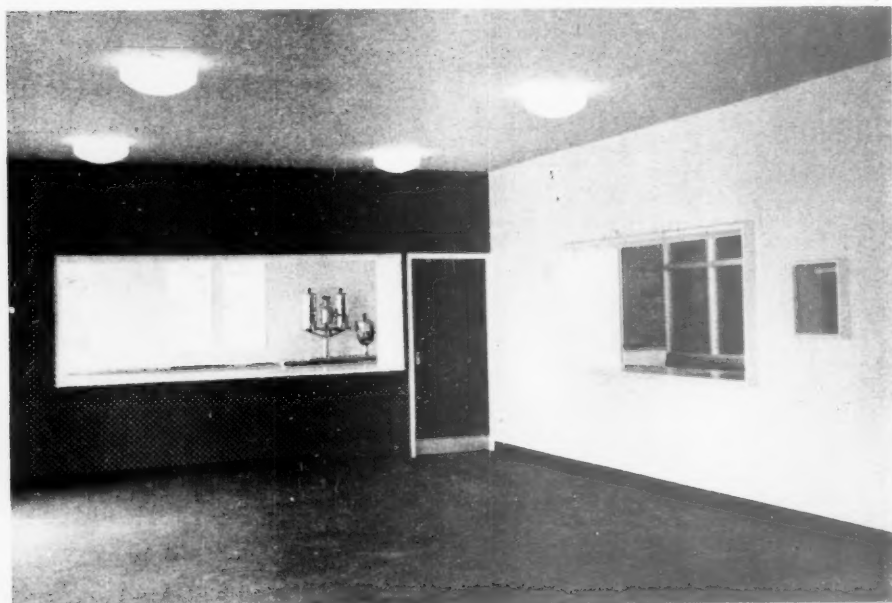
in the Hall are in beech and are wax finished.

The composition floor is coloured red in the service areas and marigold elsewhere.

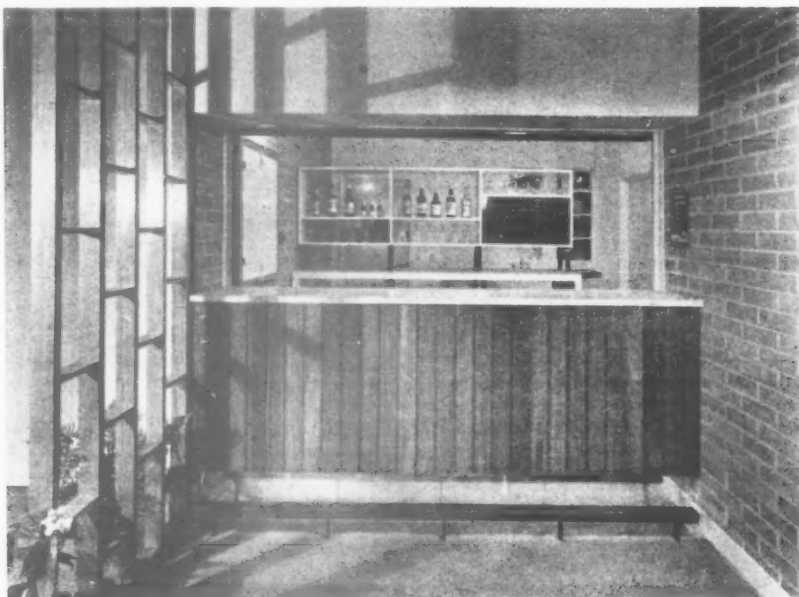
**Services :**

The heating and electrical installations were carried out by J. Green, M.I.H.E., the Hospital Group Engineer, who co-operated with the architects throughout.

**PATIENTS' CANTEEN.**



*The Snack Bar and Shop Counter Openings.*



Detailed view of the Bar.

**General Contractors :** Geo. Wood and Son, Ltd.

**Sub-Contractors :**

Suspended ceiling : A. Wright (Tilers) Ltd.

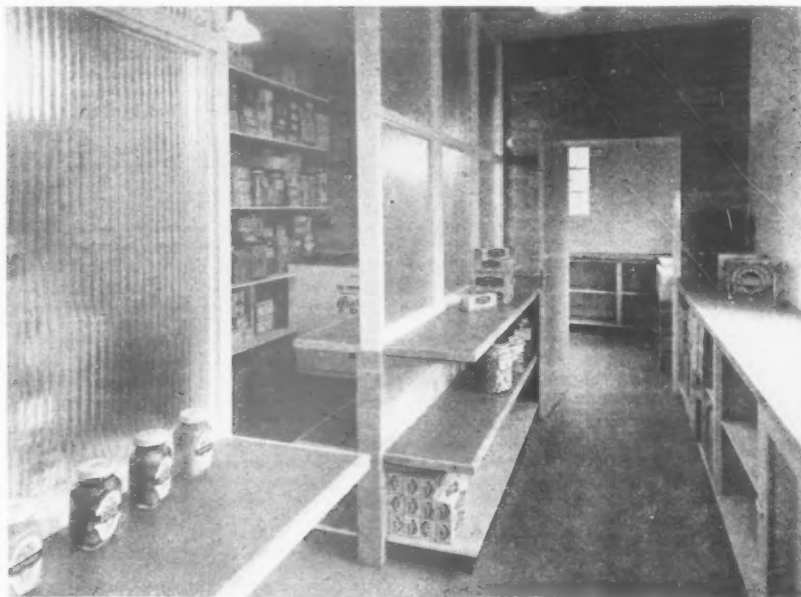
Metal windows : Siddons (Redhill) Ltd.

"Leytone" flooring : Buxton Dawson Ltd., and S. Bennett, and Co.

Roller shutters and bar grille : Wat Simmons.

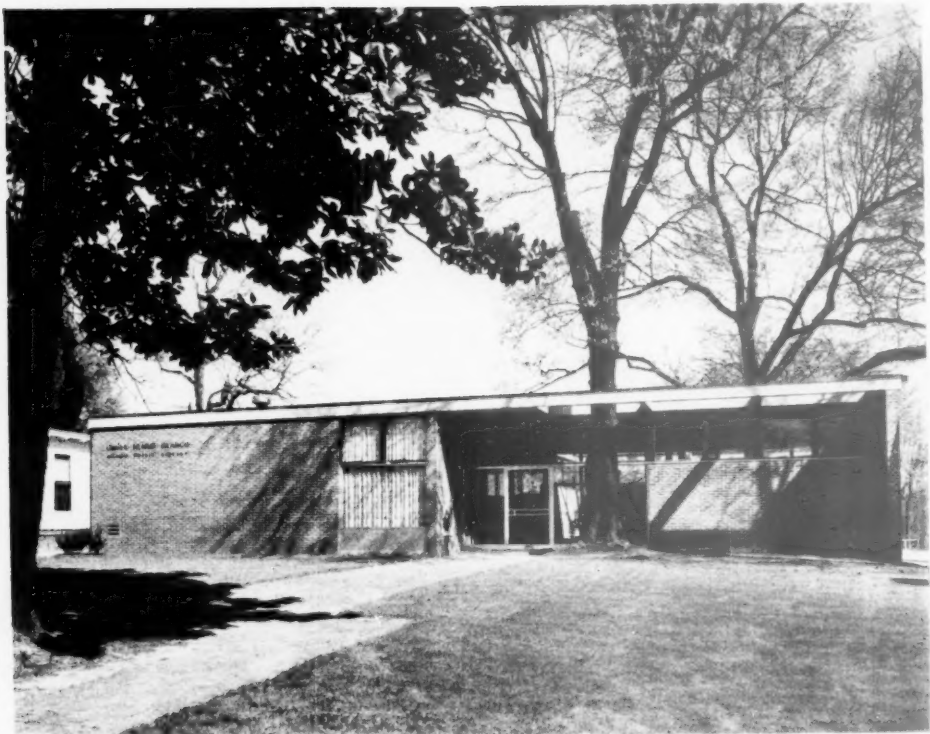
Electrical and heating installations : J. Green, M.I.H.E., Hospital Group Engineer.

## SAXONDALE HOSPITAL



Interior view of the Shop.





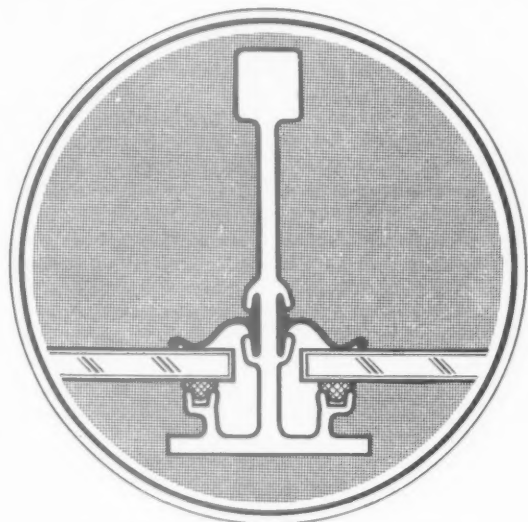
*Branch Library, Atlanta, Georgia*



See page 677



# HOPE'S ALUMINIUM PATENT GLAZING



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ALSO ·BL· BAR FOR SPANS UP TO 9' 0"  
AND ·AL· BAR FOR SPANS UP TO 7' 6"

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ARCHITECTS: STEVENS & WILKINSON

THIS is a branch library with a capacity of 11,000 volumes. It is a steel frame structure with brick panel walls which back the bookshelves. Large oak trees on the site have been saved by building an open frame round the trunks. Above the bookshelves is a clerestory, except where the library opens on to the patio.

The flooring is of rubber tile laid on concrete poured on waterproof membrane over a layer of hollow tile. The library is called the "Uncle Remus" Library, and motifs from "Brer Rabbit" have been used to decorate the walls.



View of the patio showing oak tree.

PHOTO: F. S. LINCOLN

## Timber Economy

THERE has recently been issued yet another Economy Memorandum, namely, No. 4, in the new series of M.O.W. Economy Memoranda covering the restrictions on the use of timber in all buildings. The memorandum not only calls attention to the fact that the permitted softwood allowance of 1.6 standards per 1,000 sq ft of floor area for two-storey traditional dwellings is *maximum* but it then sets out a long list of positions in which softwood must not be used. It must be very galling to those who build in England and Wales on sites which are as exposed as those in Scotland to know that the permitted allowance anywhere North of the border is greater, for the reason, it seems, that Scottish building traditionally uses more timber than England and Wales.

I do not propose to discuss the economics of these continuing serious restrictions of so useful a building material as softwood but I must at least say that some of the recommendations seem very strange as they appear to be wasteful of material resources; no doubt the timber trade will be discussing the subject with Government departments if they have not already started. Certainly softwood needs to be used with great care and as economically as possible but surely the price of it tends to force economy on any user.

Personally I regret that so much Douglas fir is included in the available softwood as this is a dollar material which I for one would willingly do without if I could be allowed European softwood in its place. I know that many users like Douglas fir as it is often so much freer of knots and defects but how horrid it is to paint.

Much of the memorandum is devoted to roofing, ceiling and floor rafters, purlins and joists. This information is very little different from earlier information put out in earlier Economy Memoranda and from many sources on the same subject. Incidentally, I hope the plain tile manufacturers are waking up to these recommendations as the savings involved by using lighter weight tiles at a less pitch are quite considerable on a large housing scheme; perhaps this may encourage the clay tile trade to develop single-lap tiles of qualities equal to those of some overseas countries.

Unlike the memoranda recently circulated on the subjects of cement and bricks, this one makes it abundantly clear that this is the basis of licensing and that the economies laid down will be enforced. It seems that one cannot even count on the 1.6 standards per 1,000 sup ft for a house as attention is drawn to the varying needs of each detail of construction and points out that "houses with metal windows will require less softwood than those without metal windows."

Many will be unhappy that, in contrast to softwood restriction, hardwood

is recommended quite widely as the substitute if, of course, they can afford the price. For example, one can provide, as so many householders would like, a hardwood strip ground floor but only if one is willing to buy hardwood joists, as one is prohibited from using softwood joists even beneath the hardwood strips. In regard to softwood floor boards, I notice Table 3 of Appendix A gives the maximum distance between centres of supports but I should feel very unhappy to specify T & G boards only just over 1in finished thickness on joists spaced at 24in centres even if this is safe according to CP.112, as it means that the weight of a man plus a load amounting to perhaps 2 cwt can be placed between two supports. I am not surprised to see the introductory note in capital letters to the timber sizes, drawing attention to the need to ensure sound design and to avoid bad workmanship. I think it would also have been wise to draw attention to the necessity of watching equally closely the quality of the timber.

A further point in regard to these floor joist sizes is the need to remind gas-fitters, electricians, plumbers and the like that they must discontinue their usual practice of cutting large grooves in joists at any position they find convenient. Not only must this be remembered during the construction but for evermore.

A most unwise restriction, in my opinion, is that softwood picture rails may only be provided in living rooms. Few will feel they can afford hardwood but picture rails are of equal importance in bedrooms, especially in all houses which are to let and in which the tenants may from time to time change. The amount of damage done to plaster and thin partitions is enormous and costly in maintenance.

A factor which I believe contributes to much bad fixing of joinery is that timber fixing grounds have almost completely disappeared from building. The use of softwood for grounds is prohibited and the replacement by hardwood is not even suggested in the memorandum.

I have examined carefully the suggestions listed as possible alternatives where the use of softwood is prohibited. Very many of the suggestions are to use hardwood and quite a number are to use concrete; the latter does not always seem in keeping with the earlier Economy Memorandum on cement but I assume, as cement is a native product, its use, even if it is scarce, is preferable to imported softwood. Incidentally, I wonder if "metalware" for flushing cisterns is a new material or whether the intention was to allow both "metal" and "clayware." It seems surprising that it is considered necessary to note that softwood may not be used for timber framed partitions as one would have thought that the various alternative

types of construction now available had long superseded timber for such applications.

I am pleased to see the prohibition of softwood for use as draining boards but I only hope that B.S.I. and T.D.A. are going to tell us which of the many hardwoods available are suitable for this purpose, as I am sure many of them are most certainly likely to be unsuitable and therefore cause trouble.

It is pointed out that where hardwood is suggested as a substitute for softwood in the memorandum, American and Canadian timber is excluded and only native or soft-currency material is implied. It would have been helpful if guidance on the species available and their suitability for various uses could have been given.

I like very much the diagram which indicates where compression and tension occur in rafters and joists as it is good educational matter but for all ordinary building jobs I fear very much that the average carpenter will not know of the existence of this information unless a diagram is put up in a convenient place for consultation on every job, which is very unlikely to happen. What is more probable is that the carpenters will not care, even if they know, if it means examining and turning every roof and floor member before fixing it.

I notice this memorandum has been prepared by Government organizations, including B.R.S. and F.P.R.L., but it seems very unfortunate that apparently neither the architects nor the builders, who one might expect to be equally knowledgeable on this subject, were brought into the committee's deliberations. I often wonder to what extent even the administrative architects in Government departments are experienced in practical building.

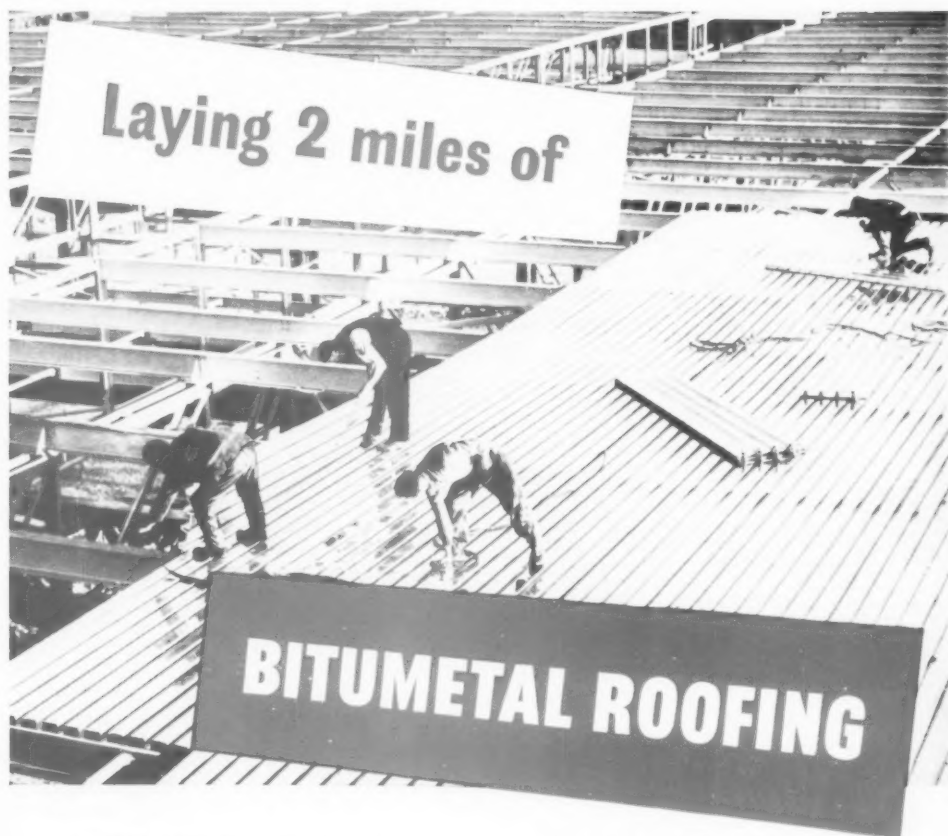
How I look forward to the day when I may be allowed to build without having to take heed of official instructions as to the materials I use. I, and I believe I am typical of architects, have no desire to use materials wastefully nor to call unnecessarily on dollars and hard currency, as one cannot afford to do either at to-day's prices, but I believe that most of us would be just as economical in our demands without the added cost of the band of officials to plan and supervise enforced economies by means of official Economy Memoranda.

### DUTCH UNCLE

#### M.O.W. LECTURES DECEMBER

GLASGOW, December 8, at 7.15 p.m.  
INTRODUCTION TO SITE COSTING FOR BUILDERS.—Speaker: A. E. Chittenden, Ministry of Works, at the Royal Technical College, George Street, Glasgow.

CHESTERFIELD, December 9, at 7.15 p.m.  
SMALL HEATING AND VENTILATING INSTALLATIONS.—Speaker: A. M. Palmer, Senior Engineer, Ministry of Works, at the Public Library, Corporation Street, Chesterfield.

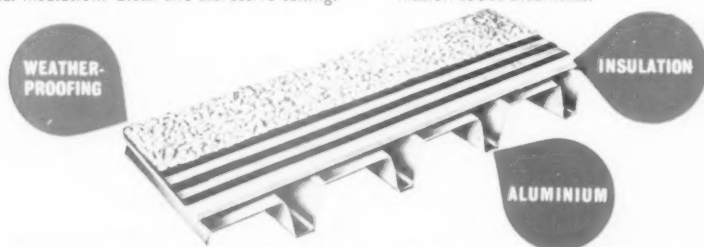


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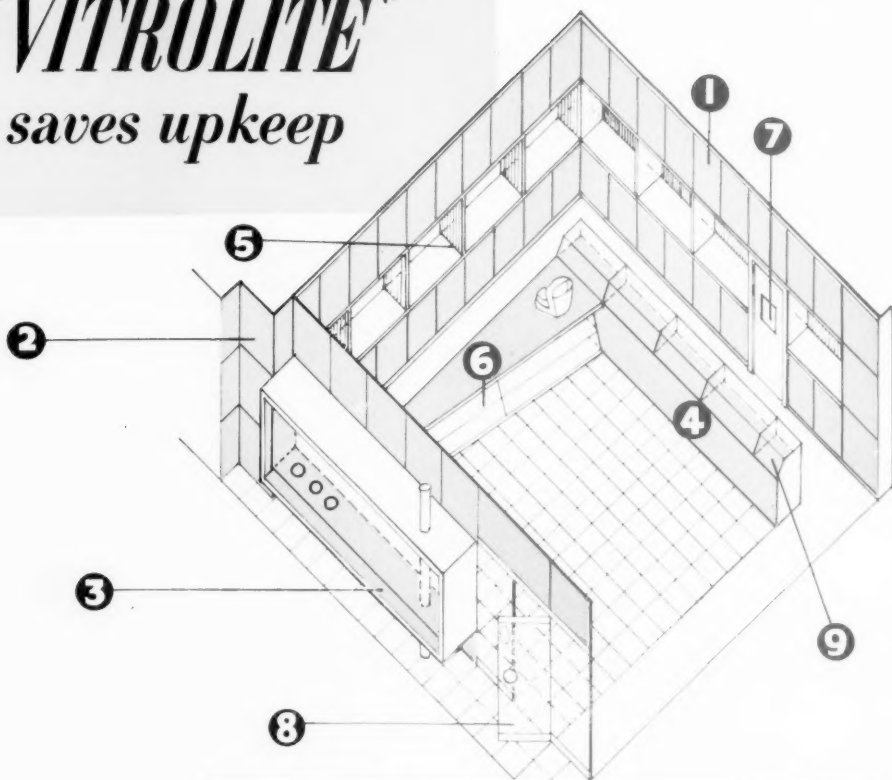
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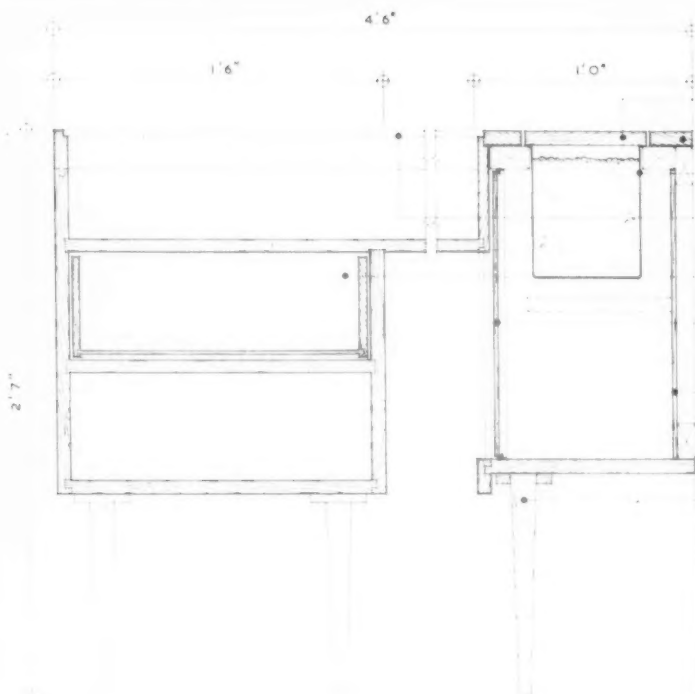


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SECTION A-A SCALE  $1\frac{1}{2}'' = 1'0''$ 

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BOX IS NOT IN USE

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ZINC FLOWER BOX

$\frac{1}{4}''$  CLEAR PLATE GLASS TOP TO  
DISPLAY LITERATURE BENEATH

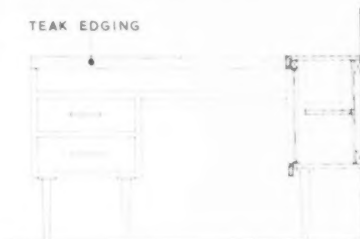
2 DRAWERS

$\frac{1}{2}''$  PLY SLIDING DOORS PAINTED  
PALE BLUE WITH CLEAR POLISHED  
SYCAMORE STRIPS

PLYWOOD BACKING

EBONISED HARDWOOD LEGS

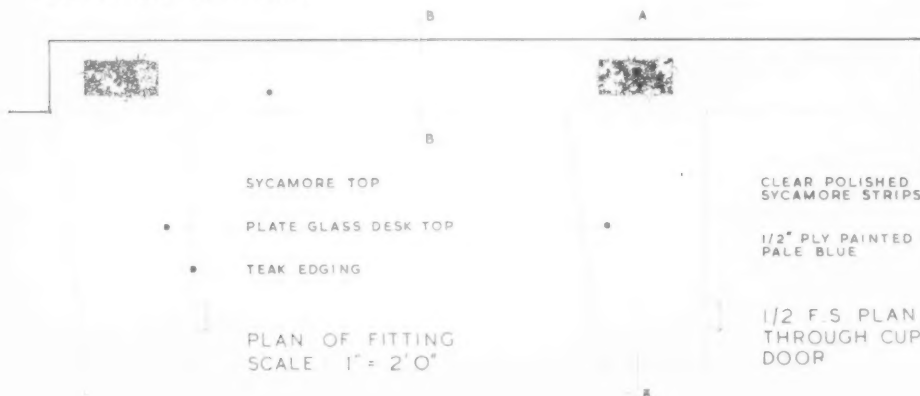
TEAK EDGING



SECTION B-B



ELEVATION OF FITTING



SYCAMORE TOP

• PLATE GLASS DESK TOP

• TEAK EDGING

PLAN OF FITTING  
SCALE  $1'' = 2'0''$

CLEAR POLISHED  
SYCAMORE STRIPS

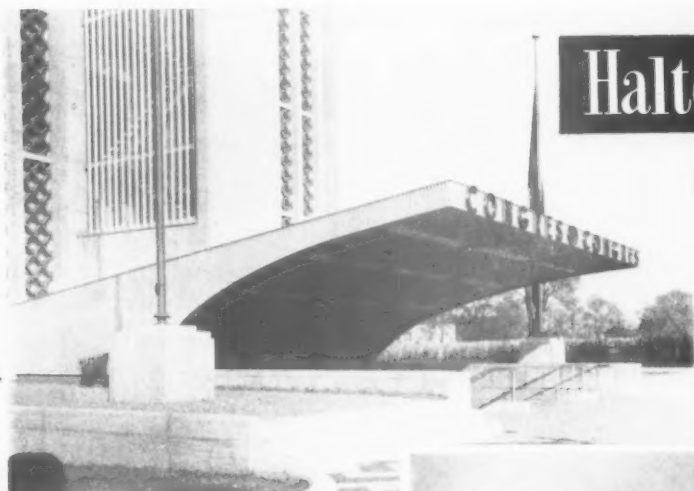
$\frac{1}{2}''$  PLY PAINTED  
PALE BLUE

$\frac{1}{2}$  F.S. PLAN  
THROUGH CUPBOARD  
DOOR



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# Halte Congres

BRUSSELS

Architect :—  
MONS. MAXIME BRUNFAUT.  
General Contractors :—  
Messrs. EDOUARD FRANÇOIS  
& FILS.

These illustrations are views of the Halte Congres which is one of the stations on the new underground railway connecting the Gare du Midi with the Gare du Nord, Brussels.

The architectural metalwork and fine woodwork were carried out by the Sage organisation and were executed in anodised aluminium and teak.

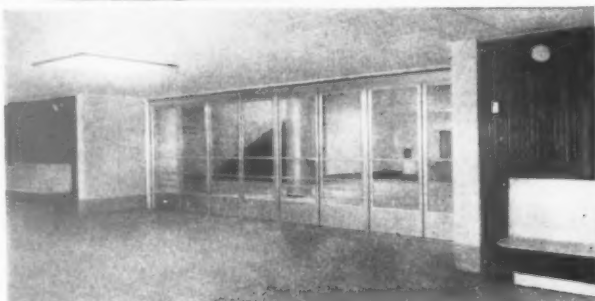
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# LIFTS IN MODERN BUILDINGS

by a Special Correspondent

**A**LTHOUGH the hydraulic lift is still employed for a few specialized applications, to-day electric lifts are generally installed in modern buildings. Their operating cost is cheaper, they are very safe, and electric power is generally available, whereas hydraulic power can be obtained only in certain districts.

An electric lift incorporates a large number of engineering components and devices, which are generally of standard type, and we shall therefore consider the lift as a complete installation. In recent years there have been many attempts to lay down standards and codes of practice for various lift installations to conform to certain specific duties, having suitable speeds and load-bearing capacity. Such standards are to be welcomed, because they tend to raise the overall standard of such installations, yet without raising capital cost because of the savings in production costs brought about by standardization of loads, speeds and equipment generally. A great deal of useful information has been published on this important subject from time to time, and architects concerned with the design of office and similar buildings are advised to obtain these from such bodies as the Building Industry National Council, the British Standards Institution and from the Ministry of Works, the latter having been responsible for the production of Post-war Building Study No. 9, in which such information will be found.

The traffic-handling capacity of a lift will be largely affected by the speed of operation, but it is very difficult to specify exact speeds. The capacity of the lift will not increase in direct proportion to the speed, owing to the time lost in loading and unloading. A passenger lift serving a travel of 80 feet will be increased in capacity by the following amounts for a 100 per cent increase in speed, namely: when speed is increased from 150 to 300 feet per minute the corresponding increase in traffic capacity will be 33 per cent.

In the case of a goods lift, time taken in loading and unloading is even greater than with a passenger lift, forming a far greater part of the average circular trip time than with passenger lifts, so that no particular advantage will be gained by operating a goods lift at more than 100 feet per minute, except where freight in bulk is taken in and out of the lift by truck, or where the traffic is heavy enough to warrant the use of a lift operated by an attendant, where speeds of 150 to 200 feet per minute may be justified.

There is a standard range of speeds for passenger lifts from which a selection can be made, and this range includes 100, 150, 200, 300, 400, 500, 600 and 700 feet per minute; for a workers' lift in an industrial or factory building

a speed of 100 feet per minute is found in practice to be economical. Offices and similar buildings serving five or less floors should have lifts travelling at from 200 to 300 feet per minute; for six to ten floors the corresponding speeds should be from 300 to 400 feet per minute; and for more than ten floors the speed should be not less than 400 feet per minute. In shops and department stores, speed of lifts in small establishments should be 150 feet per minute, and in the larger establishments from 200 to 300 feet per minute; where a larger establishment is provided with escalators, the speed range should be from 300 to 400 feet per minute, the higher speed being used for lifts providing terminal service.

Choice of the correct type of motor for the lift installation is very important, and to-day three-phase alternating current is now practically universal, so that motors suitable for such supply only need be considered. A lift motor must have special properties, because it is required to start against a load, so that it must provide at least twice full-load torque at starting; this may limit the employment of a squirrel-cage motor, because starting current for the latter is fixed at a low figure. Lift motors should operate at a speed not greater than 1,000 r.p.m., a speed at which most geared traction machines operate.

Lift motors have until recently been rated on intermittent half- or one-hour rating, the former considered suitable for service in small office buildings and residential flats; the latter is adopted for more intense service in busy office buildings, departmental stores and similar buildings. The modern method of rating lift motors is to base the rating on the number of starts per hour, the motors being capable of handling these starts without becoming overheated. The following is an approximate guide: a light duty lift motor can deal with less than 60 starts per hour on intermittent service such as that usual for goods lifts, lifts for industrial workers and those for small office buildings. A motor for normal duty can deal with a maximum of 120 starts per hour for normal passenger lift service, and heavy duty lift motor will be capable of tackling 240 starts per hour for departmental stores, busy office buildings, and those buildings which are not adequately provided with lifts.

The single-speed slip-ring and high torque squirrel cage induction motor is suitable for use on passenger lifts operating at speeds not greater than 100 feet per minute, and for goods lifts at the same speed. A squirrel cage motor is restricted to applications where the starting current is about  $3\frac{1}{2}$  times the full load current, and where carefully controlled acceleration is not

required. The two-speed high torque squirrel cage motor is widely employed for passenger lifts up to a speed of 200 feet per minute, and for goods lifts up to a speed of 100 feet per minute. With this form of motor we cannot obtain precise conditions of acceleration, slowing and stopping; the starting current is from  $4\frac{1}{2}$  to 5 times the full load if switched direct on high-speed winding. Where this may not be possible, such a motor can be started through the slow-speed winding, but acceleration will not be so smooth.

If a pair of two-speed motors are employed in tandem, the greater speed range available is suitable for passenger lift operation up to a maximum speed of 300 feet per minute, with the great additional advantage of accurate levelling at the floors. Such an installation will require  $2\frac{1}{2}$  times the full load current, and the controlled acceleration provided will ensure smooth working and starting.

The well-known Ward Leonard system of control is also used for lift operation. In this system, maximum current is obtained at low voltage and maximum voltage at low current, which means that as current produces actual turning power, or torque, on the motor and voltage produces motor speed, then high torque will be obtained at low speed and low torque at high speed, the ideal condition making for maximum economy. This system also ensures that maximum current taken by any motor is limited to such a value that no high momentary peak loads will occur on the power line. Thus the machinery is protected against heavy overload without the use of relays or without relying on the skill of a driver.

This system is suitable with a geared traction machine for passenger lifts with a maximum speed up to 350 feet per minute, above this speed a gearless traction form of drive being employed. It is a very useful arrangement for controlling speed of goods lifts in the speed range from 150 to 200 feet per minute, where the lift has to be accurately brought to rest at floor levels. It is capable of providing great refinements in levelling, accelerating and stopping, and for that reason it is widely used in high-class installations.

It is important for the architect to appreciate the basic principles used in arriving at an estimate of the motor horse-power and power consumption for a lift. Horse-power will be a function of load and lifting speed, and it will also depend upon overall efficiency of the machine, so that it will vary slightly between different makers and will also be affected by the amount of balance provided. Maximum economy in running cost is attained by balancing the weight of the lift car and its sling and safety gear as well as the average load over a period. This latter figure

will not be constant and it will be impossible to adjust the counterweight accordingly.

It is therefore general practice to balance lifts for 40 or 50 per cent of their rated load plus the weight of the lift car, this balancing providing the most economical working conditions on an average installation. For geared traction lifts, the following well-known formula can be applied for arriving at the brake horse-power of the motor:—  
Brake horse-power  $W \times S \times C$ , where

W is the rated load in cwt.

S is the speed of the lift in feet per minute.

C is a factor which is 0.0045 if the driving machine is above the lift-well and 0.0048 if it is below. This formula assumes a 50 per cent balance of the load and an overall efficiency of 36 per cent.

Power consumption of lifts is very small, and a close approximation can be given by the following formula:—

$$U = \frac{P \times k \times T}{3,600}$$

where U is the energy consumption in Board of Trade Units for one complete circular trip, up and down, of the lift.

P is the brake horse-power of the motor.

k is a factor which has the following values, namely: 0.65 for a fully loaded trip; 0.52 for a half-loaded trip; and 0.6 for a trip without any load.

T is the time in seconds for one complete circular trip and is given by the expression  $\frac{L \times 60}{S}$  seconds, where

L is twice the lift travel in feet.

S the speed in feet per minute.

#### Methods of Control

Every lift installation has a method of control whereby the particular conditions of its service can be suitably met. The simplest method is the car-switch control whereby movement of the car is directly under the control of the attendant who operates a switch in the lift-car. The automatic push-button control is probably the one with which most people are familiar, pressing of a button causing the lift-car to start and then automatically stop at the landing corresponding to the button pressed. A greatly improved modern form of control is known as collective control, calls from the lift-car and lift-landings being registered, and answered by the lift-car stopping in floor sequence at each lift-landing for which a call has been registered; this will proceed until all the calls have been satisfied.

Simple types of automatic push-button control are limited to those installations where the service is light and intermittent, and where only a small number of floors is served, such as in a small office building or block of flats. In any large office building, lifts must be operated by attendants; they should have the signal type of control, interconnected if batteries of

two or more lifts are in centralized lift-wells. However, one lift in each battery should have passenger control as well, generally of the collective type, which will provide for any lift service outside normal working hours of the building. In other words, it is generally true to say that attendants are required for lift operation only during peak hours.

In the case of large shops and departmental stores, the passenger lift will generally be operated by an attendant, the control being one of the more simple kind for lifts operating in the range from 150 to 200 feet per minute, above which speed floor-finding and levelling of the lift must be automatic and not controlled by an attendant. There is a wide variety of signal systems available for lifts, and, generally speaking, some signalling system is essential in every lift installation, so that the maximum and most efficient service can be obtained.

From the building and architectural standpoint, it is important to note the modern trend towards solidly enclosed lift-wells which must have fire-resisting doors to landing openings, and this has resulted in the increasing use of solid sliding doors, both for lift-cars and for lift-landings. They are generally regarded as providing the best protection, and should certainly be used for all passenger lifts. The various types include those with a single leaf sliding to one side; a two-leaf centre opening; a two-leaf, two-speed, or a three-leaf, three-speed opening to one side; and a four-leaf door, comprising a pair of two-leaf, two-speed arrangement to provide opening to opposite hands from the centre. All doors must be provided with vision panels and tracks in bronze or in some other non-corrodible material.

Most people are familiar with the annoying habit of some lift passengers who leave the doors of lifts open and thereby immobilize the installation. Some kind of closer should therefore be fitted to the car door which can either be of the spring-operated or motor-driven type, the latter being preferable. It is now the best accepted practice to provide complete power operation of both lift-car and lift-landing doors, and in practice the system has fully justified itself.

Such power operation will not eliminate the possibility of stoppage owing to doors on passenger-operated lifts being left open, but it will also speed up the service given by attendant-operated machines, reducing the loading and unloading times. The centre-opening type of power-operated door will be twice as efficient in opening and closing times, with the same door speed, as when it is applied to the other two types. Such power-operated doors should certainly be used for lifts of high traffic capacity, that is to say, those in large office buildings and departmental stores.

Very great trouble is taken with modern lift installations to ensure that they are fully equipped with safety devices adequate to prevent accidents

and to avoid trouble arising from the breakdown of mechanical or electrical parts of the installation. The rope safety gear is very important, consisting of a simple device which will operate on failure of the rope and will suspend the lift-car upon its guides. For a passenger lift, this gear must be fitted below the car and will be operated by an over-speed governor for a lift having a travel greater than 20 feet. For lifting speeds up to 200 feet per minute the operation of such a gear will be instantaneous, but above this speed it must be arranged to be applied gradually.

Another very important part of a lift installation is the device provided for limiting the upper and lower normal and final stopping of the lift-car. The normal terminal stopping device will interrupt the control circuit for the direction in which the lift is moving when the device operates, being automatically reset when the lift is moved away in the opposite direction. The final terminal stopping device, once operated, will disconnect the machine from the power supply and thereby prevent further movement in either direction; this device is arranged for resetting by hand. In addition, it is good practice to provide buffers for both the lift-car and the counterweight in the lift-pit as a final protection against the effects of over-travel. For a lifting speed less than 75 feet per minute, buffers of timber or rubber should be employed; for speeds less than 300 feet per minute, spring buffers are suitable; and for lifting speeds greater than 300 feet per minute, oil buffers or similar devices should be employed.

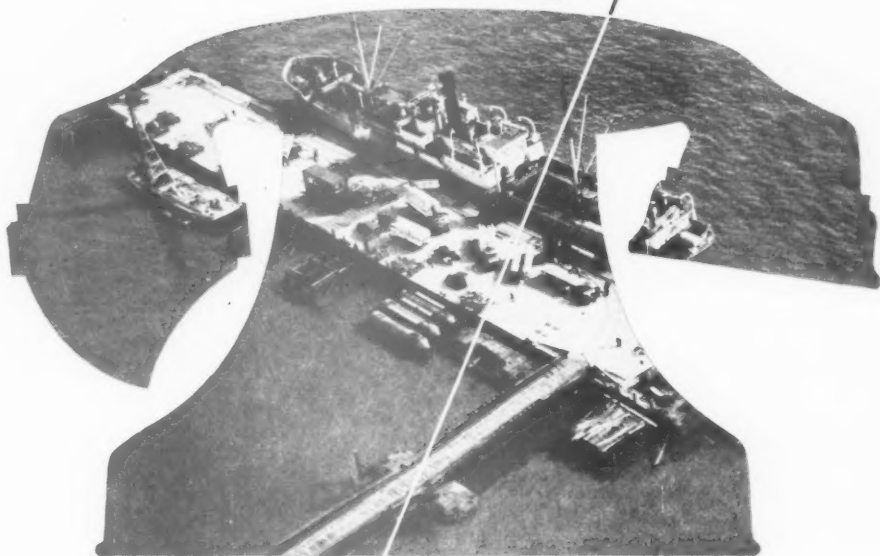
Locking devices for landing gates and lift doors must also be provided, making it impossible for any gate or door to be opened unless the lift is in that particular landing zone, and impossible also under normal conditions of operation to start the lift-car in motion unless all landing gates or doors are in the locked position. The main feature of the design of all such devices is that they must fail to safety and that they should be proof against tampering. For lifts serving more than two floors at speeds greater than 100 feet per minute, the operating ramp for the landing lock shall be of the retiring or retractable type to prevent opening of any landing gate or door while the lift-car passes through one landing zone to another. It is also recommended that such locking devices should be of the pre-locking type, in which the landing gate or door must be closed and mechanically locked before the electrical interlock is made and the lift-car can be moved. Only electrical provision is made for interlocking of the lift-car gate or door.

Lift doors and machinery should operate as silently as possible, and for this reason the lift-well should be completely enclosed, even when it occupies space available in a staircase well. It should also be so arranged that a minimum transmission of vibrations of

(Continued on page 681)



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(Continued from page 680)

audio-frequency can occur throughout the building. Even where this is achieved, it will still be necessary to insulate the lift machine by mounting it on sound insulators or upon a block of concrete, insulated from the floor of the machine room by rubber pads or similar anti-vibration material.

It is also advisable to reserve the lift-shaft exclusively for the lift and not to allow any other services to be put in it. The shaft should be finished smoothly inside, and if it is totally enclosed it has the added advantage of facilitating the fixing of rails and counterweight guides at frequent intervals, thereby contributing towards a rigid installation and improving running conditions to such an extent that the size of the guide rail may be reduced. In order to ensure that a totally enclosed lift well will not be the means of spreading fire by acting as a flue or chimney, all landing entrances should be fitted with fire-resisting doors or metal shield gates, and the well should be enclosed with solid fireproof walls. At the same time, such lift-wells should be well ventilated.

The machine-room accommodates the driving motor, which may either be of the geared or gearless traction type, with control panel and other accessories. Machinery may be placed above or below the lift-well, but the former is generally the best position because a reduced load is imposed on the building, the capital cost is lower, a smaller lift-well is required for a given size of car, power consumption is reduced and the cost of rope renewals is less. A machine-room for a high-speed lift with gearless traction should always be above the lift-well. In any case, from a structural point of view, the machine-room should be dry and weatherproof, well lighted both by natural and artificial means, properly ventilated and of fire-proof construction.

Best position for a lift-well will probably be imposed upon the architect by local circumstances outside his control, and will mainly depend upon the general organization and internal planning of the building. In the case of passenger lifts for office buildings and departmental stores, lifts are best sited in a well near the main staircase. Where a building is high enough to warrant high-speed lifts it will be found generally that more than one lift will be required, and it will therefore be a good plan to arrange the two lifts side by side in the same well. In this case a common machine-room is provided for the lifts, and their controls can be more readily and easily interconnected. From a service point of view, convenience is greater because the landing entrances are next to one another on each floor.

In a shop or small store, lifts are best sited near the main traffic aisle through the premises and they do not have to be alongside the main staircase. In such a case, approach to the lifts should be well defined and free

from all obstructions. Where two or more lifts are concerned, use of a common lift-shaft will have the same advantages as for those in office blocks.

One of the most difficult matters to decide when planning a lift installation is the number of lifts necessary to satisfy traffic requirements in any particular building, and this is not made any easier by the fact that no hard and fast rules can be laid down. It is relatively easy to estimate the number of goods lifts required, but in the case of passenger lifts the traffic is very difficult to estimate because it will involve a number of factors unknown until the building is in occupation.

For buildings of flats there is no difficulty about estimating probable traffic, because the flats will be arranged in a certain layout which will determine the positions of the lifts. For office blocks, provision of lifts will be based on the population on each floor, and allowance will have to be made for traffic between floors. A rough guide is that if the lift capacity is capable of dealing with normal peak periods then it will be adequate.

### Development Charge

THE proposals of the Government to abolish Development Charge have not come as a surprise. This levy has always been unpopular and has had serious effect on building operations, since developers have not been inclined to develop land in the knowledge that a substantial sum might be payable in return for the permission to develop.

There have been other flaws in connection with the charge. The Central Land Board was the arbiter of the amounts to be payable in any particular case, and there was no appeal from their decision. Further experience has shown that sellers of land have in a number of cases sought to realize practically the full development value of the land from purchasers leaving the latter to pay twice over for the development rights, to the seller on the one hand, and to the State via the Central Land Board on the other. The powers of the Central Land Board, moreover, to make compulsory purchase orders against owners who refused to develop their land and at the same time refused to sell it except at a higher price than the existing use value of the land have been considered to be somewhat too extensive. And the case is recorded where a would-be developer who has asked a higher price than the existing value of the land, simply went behind the back of the owner, and, having obtained a planning permission for the development he proposed, went round to the Central Land Board and persuaded them to make a compulsory purchase order, much to the bewilderment of the owner of the land himself. And the Court in the case in question held that the Central Land Board had not exceeded their powers. Now that the Development Charge is to go—indeed it has gone as from November 18, 1952—one

is inclined to wonder what is going to happen to the Board itself. Will it be dissolved or will some other duties and functions be found for it?

To consider now in the brief alterations that are to be made by the Bill or Bills which are to be introduced in gradual stages. The purpose of the Development Charge might perhaps be explained very briefly. July 1, 1948, was taken as the material date, and the development rights attaching to all land as at that date were taken out of private ownership and vested in the State. Henceforth the owner, in theory, at any rate, was not to be allowed to make a profit out of the additional value that his land might have by reason of the fact that it might be put to a more lucrative use than its existing use. And if the owner desired to develop the land in this way, he became bound to pay the State a "development charge," that is the amount of the increase in the value of the land which would accrue as the result of the development.

To compensate owners, however, the Act provided that claims by owners for the loss of their development rights would be met by the Government, out of a compensation fund of £300 million. The time for the making of such claim has long passed. Most of the claims have been assessed and the total amount is likely to exceed the amount of the Compensation Fund by about £50 million. Some claimants have been promised preferential treatment out of the Fund, their claims, however, not being likely to exceed £100 million. The remainder of the claimants could only be paid out of the Fund at something like 16s in the £, but apparently it is the intention of the Government to honour every claim in full up to 100 per cent of the value of the claim admitted by the Central Land Board as qualifying for payment out of the £300 million Fund. In addition, interest calculated from 1948 to the date of payment will also be receivable.

But payment of the claims are not to be made as originally intended on July 1, 1953, and payment may be deferred for 18 months or more. Moreover, it would appear that payment for loss of development rights is not to be recoverable until the loss in fact occurs; and for this purpose the loss will generally be treated as occurring upon planning permission for the particular development desired being refused. Owners of land who have sold their land at existing values will also be treated as having suffered the loss and being entitled accordingly to payment of compensation without further postponement.

Compensation for compulsory acquisition of land by local authorities will still be on the basis of existing use value with the addition of any unexpended part of the claim which ranked for payment out of the Central Land Fund, plus the interest thereon.

The only class of persons whose interests are ignored are those who have already paid the charge.



**FITTINGS  
SANITARY  
C2.7**

The "Neoline" lavatory basin in vitreous china is available in colours which have exotic names such as Corallin, Ivoire de Medici and so on. The pastel range of standard colours is pink, ivory, blue and green. The basin is rectangular with a slot overflow at the front. Overall measurements are 27in x 22in giving an actual basin size of 19in x 14in. Various designs of fitting from twin taps of round design with chain and outlet plug to the built-in tap with mixer and waste stop incorporated are available at prices ranging from £2.0s. 6d. to 66s. 3d. Adjustable brackets are extra to the price of the basin.



**FITTINGS  
SANITARY  
C2.8**

Known as the "Neolux" suite this low down siphonic closet in vitreous china is by the same makers as the "Neoline" lavatory (C2.7) and the "Neo-classic" bath (C2.8) and is produced in the same standard range of colours.

The cistern may be 2, 2½ or 3 gallon. Dimensions are as follows, to the nearest ½ in. — Overall height, 2ft 6½ in. Projection from wall, 27½ in. Overall width of cistern, 20½ in. Projection of cistern, 8½ in. Distance from wall to centre line of vertical soil pipe, 5½ in. Horizontal outgo type is also available. A complementary fitting is the "Neospray" vitreous china Bidet overall sizes of which are — Length, 24½ in. Width, 14 in. Height, 14½ in.



**FITTINGS  
SANITARY  
C2.9**

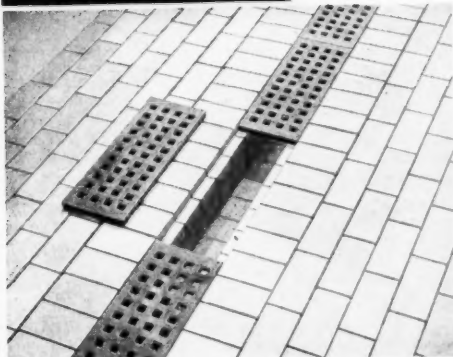
The composite arrangement illustrated includes a "Neo-classic" porcelain enamelled cast-iron one piece bath. For colour range see C2.7.

The bath is designed to be built into right or left hand corners or into a recess. A tiling strip is incorporated around the built-in edges.

Nominal length is 6ft x 2ft 6½ in. wide x 18in high outside dimensions, with a 3½ in. roll.

The recess type has outlet at either right or left end as required.

The shower fittings, curtain rails, taps, etc. are all available from the same firm.



**STRUCTURE  
FLOORING  
A10.3**

Classification of these acid resisting tiles under flooring may be slightly misleading since the manufacturers specialise in acid corrosion prevention from the materials and structure angle for tank linings, fume extraction systems, etc.

The tiles shown here are claimed to be acid and alkali resistant and to withstand the most severe mechanical wear. A special jointing cement is used and the use of correct channelling is stressed.

The firm welcomes enquiries relating to pickling and plating plants, effluent treatment, storage tanks, etc.

## MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to :

The Editor,  
The Architect and Building News,  
Dorset House,  
Stamford Street, S.E.1.

Please mark the envelope MOSAICS.

## INDUSTRIAL NOTES

The London Master Builders' Association has sent a donation of twenty guineas to the London Association of Builders Foremen and Clerks of Works for its Pensions Fund.

The BEAMA Catalogue, 1952-53, has just been published for The British Electrical & Allied Manufacturers' Association Inc. by Iliffe & Sons Ltd. for private distribution. Size LD4to (12in x 8½in). 1,020 pages. Bound full cloth.

The use of board containers to carry bricks has been developed on a limited scale in Scotland and has proved so successful that shippers are now pressing for fuller use of the system. Pre-war policy (which still applies to a considerable extent) was to ship bricks in bulk, accepting the fact that this inevitably resulted in breakage and multiple handling. During unloading almost every brick had to be handled by manpower. Losses were fairly high and still are, depending on the type of brick involved. If bricks could be transported in containers (and especially in inexpensive containers) handling would be vastly simplified at both the loading and unloading stages, as well as at the job; hold space could be utilized to the maximum degree and turnaround of ships improved very considerably. That is now being done where pre-packed cargoes are involved. The refractories industry has given a lead in this connection and is now shipping a proportion of its output in containers.

The shippers are now seeking to have all brick cargoes prepacked and handled in packed bulk instead of loose bulk as formerly.

The economics of the situation are obvious for the shippers; the brick maker has to offset cost of packing against loss of bricks by breakage to determine whether the development should be extended.

Allocation of land for sand and gravel working to maintain supplies at a reasonable cost in North-West England over the next fifty years is the subject of a report of the Advisory Committee on Sand and Gravel just published. (Report of the Advisory Committee on Sand and Gravel—Part X. H.M. Stationery Office, price 3s.)

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

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# CONTRACT • NEWS •

## OPEN

### BUILDING

**ALTON R.C.** (a) 6 dwellings, construction of lay-by, footways, septic tank and drainage, Newton Valence site. (b) Council's Engineer, Council Offices, Barton End. (c) 3gns. (e) Dec. 31.

**BILLERICAY U.C.** (a) 16 houses, Wickford Estate. (b) Council's Surveyor, Council Offices, High Street. (c) 2gns. (e) Dec. 8.

**BINGLEY U.C.** (a) (Contract 1) 12 houses, (Contract 2) 15 and (Contract 3) 14 houses at Cottingley; (Contract 4) 7 houses at Cullingworth and (Contract 5) 11 houses at Wilsden. (b) J. S. Lattin, Town Hall. (c) 2gns. (e) Dec. 15.

**BIRMINGHAM C.C.** (a) (Contract No. 232) 227 multi-storey flats, St. Margaret's Avenue, Ward End Hall Estate. (b) City Engineer, Civic Centre, 1. (d) Dec. 12.

**BROWNHILLS U.C.** (a) 48 houses, Warreners Arms site. (b) Messrs. Jennings, Homer and Lynch, 3 & 5, Church Street, Brierley Hill, Staffs. (c) 2gns. (e) Dec. 16.

**BUCKS C.C.** (a) 2 classrooms and cloakroom hut as addition to the Newport Pagnell School, Bury Street, Newport Pagnell. (b) County Architect, County Hall, Aylesbury. (c) 2gns. (d) Dec. 8. (e) Jan. 12.

**CARDIFF C.C.** (a) Block of 18 flats, Cathays Terrace. (b) City Surveyor, City Hall. (c) 2gns. (e) Dec. 31.

**CARLISLE C.C.** (a) (Contract No. 28) 22 aged persons' bungalows, Lingmoor Way, Harbary. (b) City Surveyor, 18, Fisher Street, on production of receipt for deposit of 2gns to City Treasurer by Dec. 8.

**COLWYN BAY B.C.** (a) 42 houses, Glyn Estate. (b) S. Powell Bowen, Somerset House, Princes Drive. (e) Dec. 12.

**COSELEY U.C.** (a) 58 houses, 8 bungalows and 4 shops, Batmans Hill site (Contract No. 3). (b) Council's Clerk, Council House. (c) 2gns. (d) Dec. 8. (e) Jan. 12.

**DEARNE U.C.** (a) Public conveniences at Market Street, Goldthorpe. (b) Engineer and Surveyor, Council Offices, Bolton-upon-Deerne. (c) 2gns. (e) Dec. 12.

**EAST SUFFOLK C.C.** (a) 2 additional classrooms at Framlingham Secondary School. (b) County Architect, County Hall, Ipswich. (c) 2gns. (d) Dec. 8. (e) Jan. 8.

**ESSEX C.C.** (a) Health centre at Harold Hill, Romford (approx. value of contract £35,000). (b) County Architect, County Hall, Chelmsford; with full details. (d) Dec. 6.

**ESSEX C.C.** (a) 2 houses and 2 sets of farm buildings, Barnston Estate, near Dunmow. (b) County Land Agent and Valuer, 69, Duke Street, Chelmsford. (e) Dec. 16.

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

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**GIPPING R.C.** (a) 4 bungalows at Harleston and 4 bungalows at Willisham. (b) Engineer and Surveyor, Council Offices, Needham Market, near Ipswich. (c) £3. (e) Dec. 19.

**GUILDFORD B.C.** (a) 53 pairs of houses, Bushy Hill, Merrow. (b) Borough Engineer, Municipal Offices, High Street, stating whether or not apprentices would be employed. (c) 2gns. (e) Jan. 7.

**HALIFAX B.C.** (a) (Contract 1) 14 aged persons' bungalows at Grove Park; (Contract 2) 8 at Nursery Lane; and (Contract 3) 12 at Ovenden Green. (b) Borough Engineer, Crossley Street, stating contract or contracts. (c) £2. (e) Dec. 16.

**HAMPSHIRE POLICE AUTHORITY.** (a) (1) pair of houses with office at Barton Stacey; and (2) pair of houses at Odham. (b) County Architect, The Castle, Winchester. (c) 1gn each site, cheque payable to Treasurer of the Hampshire Police Fund. (d) Dec. 10.

**LONDON—TOTTENHAM B.C.** (a) 40 flats and 4 lock-up shops at High Road/Northumberland Park. (b) Borough Engineer, Town Hall, N.15. (c) 2gns. (d) Dec. 31.

**N. IRELAND—BALLYEASTON.** (a) Alterations and additions to the first Ballyeaston Presbyterian Church. (b) Messrs. Thomas T. Houston and Co., 26, College Gardens, Belfast. (c) 2gns. (e) Dec. 16.

**N. IRELAND—CASTLEREAGH R.C.** (a) 10 houses with ancillary works, Lower Braniel Road, Castlereagh. (b) Council's Clerk, Council Offices, 51, Lisburn Road, Belfast. (c) £5. (e) Dec. 12.

**N. IRELAND—NORTHERN IRELAND HOSPITALS AUTHORITY.** (a) Alterations to X-ray Department, King Edward Building, Royal Victoria Hospital. (b) Purchasing Officer, Royal Victoria Hospital, Belfast. (c) Rec. 12.

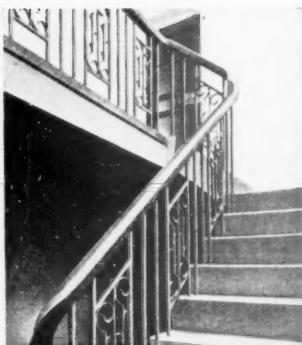
**N. IRELAND—SCRAGHY (CO. TYRONE)** (a) Primary school at Scraghy, for Rev. P. M'Loingsigh. (b) Messrs. F. M. Corr and W. H. D. M'Cormick, 7, Ferryquay Street, Derry. (c) 5gns. (e) Dec. 17.

**OTLEY U.C.** (a) 8 blocks of 4 unit flats, Weston Lane. (b) Council's Surveyor, North Parade. (c) 2gns. (e) Dec. 13.

**PORTSMOUTH C.C.** (a) (1) 120 houses at Newbolt Road, Paulsgrove; and (2) 160 flats at Leigh Park (in 2 contracts of 80). (b) City Architect, Municipal Offices, 1, Western Parade, Southsea. (c) 3gns. (d) Dec. 8.

**ROMSEY AND STOCKBRIDGE R.C.** (a) (Contract No. 1) 16 dwellings at Longstock Village with outbuildings, drainage, water supply works, etc.; and (Contract No. 3) 10 houses at Roman Road, Longstock, with outbuildings, site works, etc., and construction of approx. 320 yds. of roadway. (b) Messrs. Fowler, Grove and Hagar, 140, Lodge Road, Southampton, stating contract or contracts. (c) 3gns. each Contract. (e) (Contract No. 1) Dec. 29 and (Contract No. 3) Dec. 22.

**SOUTHBOROUGH U.C.** (a) 11 garages, Woolley Road. (b) Messrs. Howes and Jackman, 1, Verulam Buildings, Gray's Inn, London, W.C.1. (c) Dec. 29.



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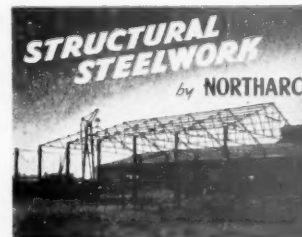
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**SOUTH SHIELDS B.C.** (a) Conversion of No. 50, Lawe Road, into aged persons' hostel. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Dec. 15.

**SOWERBY BRIDGE U.C.** (a) 14 houses and 12 flats, Kershaw site, Luddenden Foot (separate trades). (b) Architect and Surveyor, Beech Royd, Beech Road. (c) 1gn. (2gns. for 2 or more trades). (e) Dec. 18.

**SUNDERLAND B.C.** (a) 5 shops and flats, Farrington Estate. (b) Borough Architect, Grange House, Stockton Road. (c) 2gns. (e) Dec. 19.

**WELSH JOINT EDUCATION COMMITTEE.** (a) Adaptations, repairs, etc., at Llandrindod Wells Residential School. (b) H. Wyn Jones, 30, Cathedral Road, Cardiff. (c) 2gns. (e) Dec. 22.

**WEYMOUTH AND MELCOMBE REGIS B.C.** (a) 18 houses, Chapelhay Estate. (b) Borough Engineer, 6, Pulteney Buildings, Weymouth. (c) 2gns. (e) Dec. 19.

**WORCESTER C.C.** (a) The Christopher Whitehead secondary school. (b) Director of Education, 4, Copenhagen Street. (c) 5gns. (d) Dec. 10.

## MISCELLANEOUS

**CORNWALL C.C.** The Council is preparing a list of Contractors for maintenance works, small improvements and extensions, external and internal decorations and minor electrical installations to County Council buildings, estimated to cost less than £1,000. Applications to County Architect, County Hall, Truro, by December 15, stating (a) extent of area in which prepared to undertake work; (b) extent and type of work undertaken (building, plumbing, decorating, etc.); (c) available labour force normally employed; and (d) if not already on Council's list, names of two referees.

## PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. 1 denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

## BUILDING

**ANNFIELD PLAIN.** (1) New R.C. church, etc. (3) Thomas Curry and Son, Meldon Street, Newcastle-on-Tyne.

**SWANSEA E.C.** (1) First instalment of multilateral school. (2) Penlan. (3) Gee, Walker and Slater, Ltd., of Bridgend, Derby and London. (4) £299,487.

**SWANSEA B.C.** (1) 202 houses. (2) Cadle. (3) Direct labour. (4) £289,160.

**LONDON.** (1) Rebuilding Notre Dame de France Church. (2) Leicester Square. (3) (Lowest tender) C. P. Roberts and Co., Ltd., 31, High Holborn, W.C.1.

**MIDDLESEX C.C.** (1) Primary school. (2) Hayes. (3) W. S. Try, Ltd., High Street, Cowley, Uxbridge. (4) £74,106.

**WISBECH, CAMBS.** (1) Erection of factory for Metal Box Co., Ltd., The Langham, Portland Place, London, W.1. (3) Mitchell Construction Co., Wharf Road, Peterborough. (4) £210,000.



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**ENFIELD U.D.C.** (1) 78 flats, 60 houses. (2) Hoe Lane. (3) Townsend and Collins, Ltd., Enfield. (4) £183,133.

**EDINBURGH CITY COUNCIL.** (1) 185 houses. (2) Clermiston. (3) McTaggart and Mickle, Ltd., 12, North St. Andrew Street, Edinburgh.

**CROYDON B.C.** (1) 406 houses. (2) New Addington Estate. (3) Wates, Ltd., 1258, London Road, Norbury, S.W.16. (4) £593,600.

**BRENTWOOD, ESSEX.** (1) New blood-transfusing depot. (2) Brentwood District Hospital. (3) S. Cronin and Son, Ltd., West Street, Grays, Essex. (4) £60,232.

**COLCHESTER B.C.** (1) 134 houses. (2) Monkwick Estate. (3) Direct labour. (4) £162,983. (1) 76 houses. (2) Same estate. (3) J. Moss and Son, Ltd., Shrub End, Colchester. (4) £91,843.

**BRISTOL CORPORATION.** (1) Building and engineering works. (2) Horfield (Manor Farm) school. (3) H. J. Walker and Sons, Ltd., Station Road, Bristol. (4) £44,500.

**BROMLEY B.C.** (1) 48 flats. (2) Hayes Place Estate. (3) H. J. Eaglen, Ltd., 6, Dorset Road, London, S.E.9.

**OSWESTRY B.C.** (1) 56 houses. (3) Edward Gittings and Sons, Johnstown, Wrexham. (4) £74,379.

**SITTINGBOURNE U.D.C.** (1) 36 flats. (2) Canterbury Road Estate. (3) Greenhill Construction Co., Ltd., Herne Bay, Kent.

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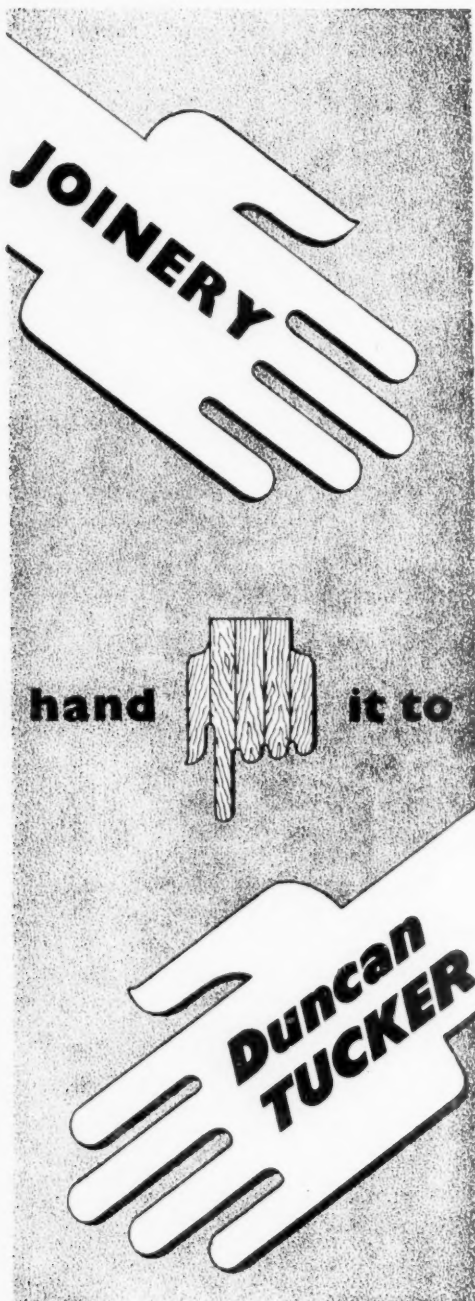
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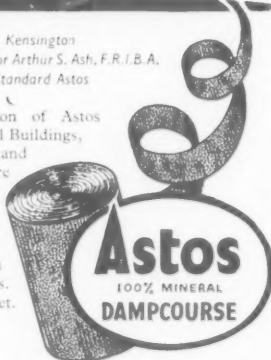
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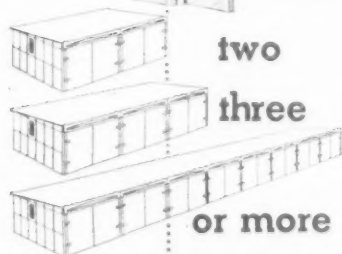
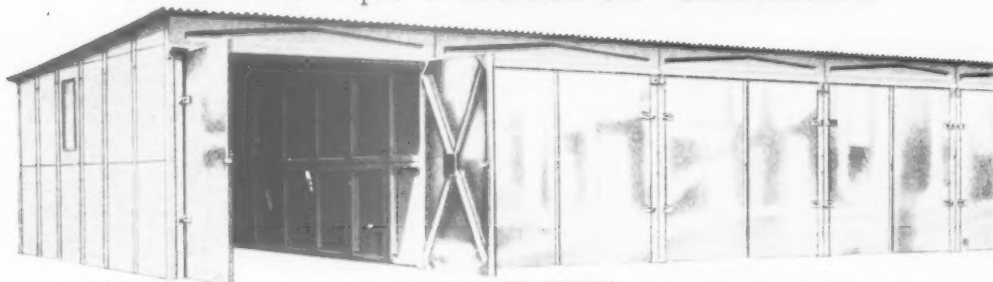
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## PRESS NOTICE

For the issue of "The Architect and Building News" dated December 25th, classified advertisements must reach us by 157 POST, THURSDAY, December 18th

## APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc. if the applicant is a man aged 15-64 or a woman aged 16-59 inclusive, unless he or she or the employer is exempted from the provisions of the Notification of Vacancies Order 1952.

### BOROUGH OF ROYAL LEAMINGTON SPA

BOROUGH ENGINEER & SURVEYOR'S  
DEPARTMENT.

ARCHITECTURAL ASSISTANT, GRADE  
A.P.T. IV (£555-£600).

APPLICATIONS are invited for the above appointment. Applicants should have passed the Intermediate Examination of the R.I.B.A. and should have good general experience in building works and in the preparation of plans, specifications and detail drawings.

Application forms can be obtained from C. O. Innes Jones, B.Sc., A.M.I.C.E., Borough Engineer, Town Hall, Leamington Spa, and the completed forms must be returned to him not later than Wednesday, 10th December, 1952.

JAMES N. STOTHERT,

Town Clerk.

Town Hall,  
Leamington Spa  
November, 1952.

[6810]

### CITY OF BIRMINGHAM EDUCATION COMMITTEE.

APPOINTMENT OF  
ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the post of ARCHITECTURAL ASSISTANT in the Architect's Branch of the Birmingham Education Department (Architect to the Committee, Mr J. R. Sheridan-Shedden, A.R.I.B.A.). Salary A.P.T. Grade III (£525-£570). Experience in educational buildings although desirable is not essential.

Applicants should either—  
(i) Have attended a full-time course in Architecture, passed the R.I.B.A. Intermediate Examination or its equivalent and subsequently worked one year in an architectural office; or

(ii) Have served or be serving articles of pupilage or worked in an architectural office for three years and have passed the R.I.B.A. Intermediate Examination or its equivalent.

Application forms, which may be obtained from the undersigned on receipt of a stamped addressed envelope, must be returned not later than 22nd December, 1952.

B. L. RUSSELL,

Chief Education Officer

Education Office  
General Purposes Branch,  
Margaret Street,  
Birmingham, 3.

[6811]

### BASILDON DEVELOPMENT CORPORATION

APPLICATIONS are invited for the following PLANNING POSTS on the staff of the Architect Planner, N. Tweedell, A.R.I.B.A.  
GRADE III £815-£1085  
GRADE IVB £715-£815

The work will cover a wide variety of New Town development, in particular the Neighbourhood planning and layout of the Town Centre. Sound professional training and experience in these fields is essential. Architectural qualifications would be an advantage.

Commencing salary within ranges stated will be in accordance with experience and ability. Appointments are supernumerary and housing accommodation in the new town will be available in appropriate cases. Successful applicants will be required to pass a medical examination.

Applications are to be made on a form obtainable from the Chief Architect and should reach the General Manager of Basildon Development Corporation, Gifford House, Basildon, Essex, by 17th December, 1952.

[6815]

# ANNOUNCEMENTS • CONTRACTS • TENDERS

Close for press 1st post Monday for following Thursday Issue

## APPOINTMENTS—contd.

### URBAN DISTRICT OF ELLESMERE PORT.

APPOINTMENT OF  
ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited from qualified and experienced men for the above appointment on the permanent salaried staff of the Engineer and Surveyor to the Council. Applicants must have had considerable experience in design and construction, particularly in relation to housing. The appointment is a new one necessitated by the exceptional magnitude of the Council's authorized housing programme for the next five years to meet the housing needs of new and expanding local industries.

The salary to be offered will be within Grade V of the A.P.T. Division of the National Salary Scales (£625-£685 per annum). The weekly tenancy of a Council house will be offered to the successful applicant on appointment if he reasonably requires housing accommodation for his family.

Applications, stating age, qualifications and experience, in the Form provided, which may be obtained on application to the Council's Engineer and Surveyor, together with the names and addresses of two persons, having knowledge of the applicant's experience and antecedents, to whom reference can be made, must reach me by not later than Monday, the 22nd December, 1952.

P. J. HODGES,

Clerk of the Council.

Council Offices,  
Ellesmere Port  
18th November, 1952.

[6814]

## APPOINTMENTS—contd.

### CITY AND COUNTY OF CANTERBURY.

CITY ARCHITECT'S DEPARTMENT.

THE City Architect invites applications for the appointment of a SECOND ASSISTANT ARCHITECT, Salary Scale APT. V.A. (£625 per annum rising to £685).

Applicants must be Associates of the Royal Institute of British Architects. A keen interest and some experience in contemporary design is essential, and previous experience of housing work is desirable.

The appointment will be subject to one month's notice in writing on either side, and to the terms of the National Joint Council's Scheme of Conditions of Service, and the provisions of the Local Government Superannuation Act 1937. The successful applicant will be required to pass a medical examination.

Applications, giving age, qualifications and experience, and the names and addresses of two persons to whom reference may be made, should be sent to I. Hugh Wilson, O.B.E., A.R.I.B.A., A.M.T.P.I., City Architect & Planning Officer, Municipal Buildings, Canterbury, not later than Thursday, 1st January, 1953.

Canvassing, directly or indirectly, will be a disqualification.

I. BOYLE,  
TOWN CLERK.

Municipal Buildings,  
Dane John,  
Canterbury.

[6808]

## MISCELLANEOUS SECTION

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## ARCHITECTURAL APPOINTMENTS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc. if the applicant is a man aged 15-64 or a woman aged 16-59 inclusive, unless he or she or the employer is exempted from the provisions of the Notification of Vacancies Order 1952.

SENIOR Assistant required for Dar-es-Salaam. Must have ability and aptitude for design of large schemes. Salary £1,200 per annum with prospect of junior partnership or interest in business. —Apply R. S. Cobb, F.R.I.B.A., St. Ebbas Priory, Shotover Hill, Oxford. [6809]

EXPERIENCED Architectural Assistants required for works engineers' department of large Midland aero engine manufacturers; capable of surveying, designing and detailing all types of industrial buildings and with experience of factory services; only first-class men need apply. —Applications, giving details, to Ref. HRH2, Box 462. [6813]

## SERVICES OFFERED

THATCHING and reedlaying contracts undertaken by experts. —J. G. Cowell, Soham, Ely, Cambs. [0122]

## CONTRACTS WANTED

SUB-CONTRACTS wanted for Brickwork and Plastering to the trade. Labour only or with plant and materials. —Simmonds & Campbell, 1a, Thornberg Road, Blackheath, S.E.3. [6795]

PAINTING and decorating contracts and sub-contracts wanted, all classes, any area; new work or old. —Henries, 15, Fuzedown Drive, Tooting, S.W.17. Streatham 6193. [0127]

### LONDON COUNTY COUNCIL.

ARCHITECT Grade II (£817 10s-£1,002, in Historic Records Section of Architect's Dept. should be qualified architect with specialized knowledge architectural and decorative styles all periods, and have experience preservation of buildings of historic and architectural interest.

For application forms to be returned by 20th Dec., send 2/- a.c. to Architect, AR EK HR 5, County Hall, S.E.1. [1257] [6811]

### LONDON COUNTY COUNCIL.

VACANCY in Housing Division for SITES MANAGER. £1,190-£1,425.

Form and particulars from Architect, AR EK HT 5, County Hall, S.E.1. [1238] [6815]

## FOR SALE

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## WANTED

SURVEYOR'S measuring staff for use with S. Dumpy level.—Particulars to 55, The Mall, Ealing, W.3. Tel. Ealing 1491. [6805]

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## PLANT FOR HIRE

FOR immediate hire, Barber-Greene finisher, standard machine, in good condition, with competent operator.—William F. Rees, Ltd., Plant Department, Marpit Lane, Coulsdon, Surrey, Uplands 5302. [6806]

## INSURANCE

ARCHITECTS' Indemnity Insurance effected.—Please write for Proposal Form to E. J. SAXBY, Incorporated Insurance Broker, 37a, Carfax, Horsham, Sussex. Tel. 990. [6779]

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The book offers practical, comprehensive and up-to-date information on every aspect of the profession. It discusses, from the student's viewpoint, the many problems he is likely to encounter and sets out plainly, fully and sympathetically everything the intending architect will require to know during his student days.

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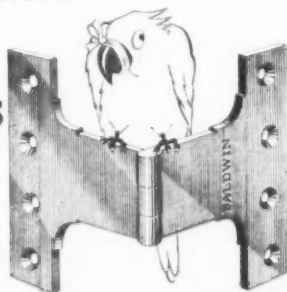
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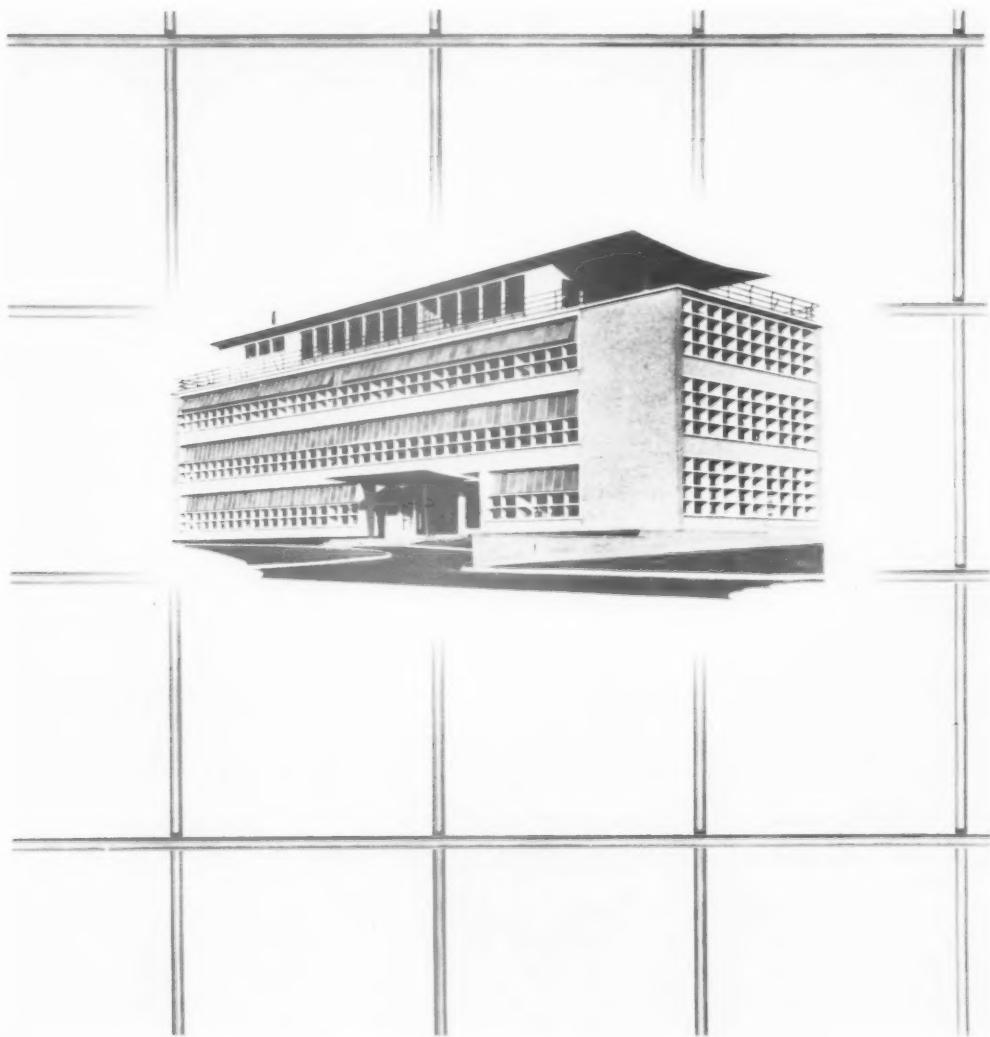
Official Notices, Tenders, Auction, Legal and Miscellaneous Appointments on pages 38 and 39

Adams Hydraulics, Ltd.	12	Coventry (Asphaltes), Ltd.	35	King, J. A. Co., Ltd.	32	Siskol Machines, Ltd.	33
Anderson, D., & Sons	21	Eidelman, J.	10	Kinnear Shuttles	31	Spencer Lock & Co., Ltd.	2
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Bath & Portland Stone Firms, Ltd.	40	Imbert & Rolfe, Ltd.	33, 34	Magnet Joinery, Ltd.	23	Stelson (Industrial Floors), Ltd.	39
Bates, Ernest, Ltd.	37	Evans Lifts, Ltd.	35	Manufacturers & Distributors	20	Stic B Paint Sales, Ltd.	23
Blackwell, Wyckham	32	Farmiloe, T. & W., Ltd.	20	Syndicate, Ltd.	30	Structural and Mechanical Development Engineers, Ltd.	8
Blockcraft Co., Ltd.	40	Fibreglass, Ltd.	26	Morgans, M.	35	Thorp, John	35
Braby, Frederick, & Co., Ltd.	9	Fimlock Gutters, Ltd.	24	Messrs. G. E. Ltd.	34	Tinsley Wire Industries, Ltd.	16
Brady, G., & Co., Ltd.	9	Floor Renovations, Ltd.	35	Norhate Organisation	34	Tucker (Tottenham, Ltd.)	36
Briggs, Wm., & Sons, Ltd.	27	Freeman, Joseph, Sons & Co., Ltd.	33, 37	Nuralite Sales, Ltd.	17	Turner, Charles, & Son, Ltd.	14
British Reinforced Concrete Engineering Co., Ltd.	33	General Electric Co., Ltd., The	32	Orlit, Ltd.	13	Twistell Reinforcement, Ltd.	14
Brickwork Co., Ltd.	33	Gibson, Arthur, L., & Co., Ltd.	3	Phoenix Timber Co., Ltd., The	31	United Merchants, Ltd.	22
Calow Rock Lime Co., Ltd.	36	Gray, J. W., & Co., Ltd.	35	Photograms of the Year	14	Ward, Thomas W., Ltd.	33
Cape Asbestos Co., Ltd.	15	Gummers, Ltd., Rotherham	8	Pilkington Bros., Ltd.	18	Wardle Engineering Co., Ltd.	4
Carlisle Plaster & Cement Co., Ltd.	15	Hangers Paints, Ltd.	6	Previte & Co., Ltd.	40	Warry Patent Building Equipment Co., Ltd.	28
Celion, Ltd.	14	Harvey, G. A., & Co. (London), Ltd.	33, 37	Rawlings & Co., Ltd.	36	West, A., & Pairs, Ltd.	22
Celotex, Ltd.	18	Higgs & Hill, Ltd.	12	Resnoid & Mica Products, Ltd.	8	Wills Engineering & Contracting Co.	33
Cheetham, H., & Co., Ltd.	31	Hille, S., & Co., Ltd.	4	Rogner Building Works, Ltd.	34	Winterburn, F. A., Ltd.	33
College of Estate Management	39	Hope, Henry, & Sons, Ltd.	26	Rubetod Co., Ltd., The	36	Young H., & Co., Ltd.	1
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		Hulle & Sons Ltd.	14	Semtex, Ltd.	17		
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				Siegmart Floor Co., Ltd.	11		

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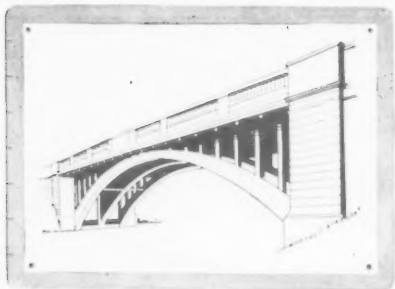


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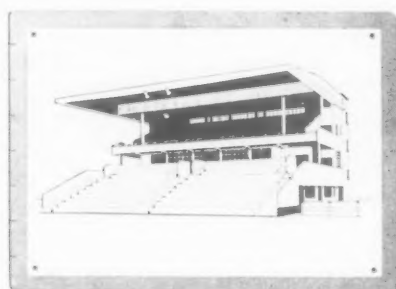
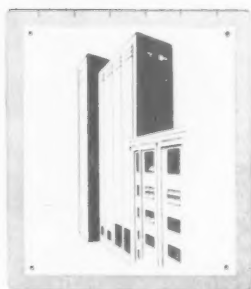
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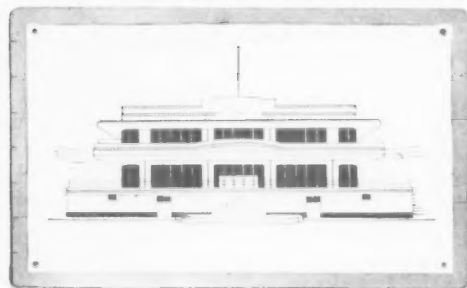
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